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ABSTRACT

Although the study of language variety has wide implications in several fields, it is an aspect of linguistics that has been neglected for too long in theory and practice. This collection takes a comprehensive look at dialectal, social, and stylistic variation in human communication. The reader consists of 13 contributions grouped into three parts. Part I, "Towards a Theory of Language Variety," is concerned with the building blocks that contribute to a more realistic theory of language variety. Parts II and III deal with language variety in descriptive and applied linguistics. The correlation between linguistic form and situational and functional variables is examined, as well as methods of description and comparison and the implications of the study of language variety for language teaching. (Author/CFM)

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A READER

ON LANGUAGE VARIETY

edited by
C.S. Butler (Nottingham)
and
R.R.K. Hartmann (Exeter)

Volume 1

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Preface

This volume is the first in a monograph series which aims to promote limited but significant contributions to descriptive and applied linguistics. The problem of 'variety' in language has been neglected for too long in linguistic theory and practice, and we hope that the collection of important writings we have assembled takes a fresh and comprehensive look at the fascinating array of dialectal, social and stylistic variation in human communication.

The study of language variety has wide implications in several fields. Further volumes are planned to cover such inter-disciplinary problem areas as speech pathology, language teaching and lexical studies in their relevance to particular languages.

We are grateful for the encouragement of the University Publications Committee and the co-operation of authors and publishers who generously permitted us to use (and in some cases modify) copyright material.

Exeter, December 1975

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Acknowledgements

(1) "Dialects" is an extract (pp. 153-157) from Chapter 9 of the book *The Life and Growth of Language* by W.D. Whitney, published in 1875 by King in London and Appleton in New York and reprinted in 1970 by Olms in Hildesheim.

(2) "Functional styles" by B. Havránek is taken (pp. 3-15) from the *Prague School Reader in Esthetics, Literary Structure and Style* edited by P.L. Garvin and published in 1964 by Georgetown U.P. Originally it was a paper read at a conference (*SČJK* Prague 1932).

(3) "Standardised terminologies" is based on a report (pp. 2-8) prepared by E. Wüster for UNESCO (Paris) in 1955.

(4) "Registers" is a (shortened, pp. 251-255) contribution by J. Ellis and J.N. Ure to the *Encyclopedia of Linguistics, Information and Control* edited by A.R. Meetham and published by Pergamon Press Oxford in 1969.

(5) "Plurilingualism" forms the introduction of a book (pp. 15-29) on *Linguistic Diversity in Canadian Society* edited by R. Darnell and published by Linguistic Research Inc. (Edmonton) in 1971.

(6) "Early French and Italian railway terminologies" constitutes the reworking into a new article of two reviews by R.A. Hall published in *Language* (L.S.A.) in 1955 and 1971.

(7) "Control tower language" is an abridged version of an article by W.H. Sumby which appeared in *Language and Speech* in 1960 (pp. 61-70).

(8) "Toponymy and lexicography" by M.F. Burrill and E. Bonsack was first published as part (pp.183-195) of the Conference papers *Problems in Lexicography* by the C.R.L.S. and Indiana University Press in Bloomington in 1962 under the editorship of F.W. Householder and S. Saporta.

(9) "Investigating urban speech" is extracted from the final chapter (pp. 169-182) of H. Kurath's book *Studies in Area Linguistics*, published by Indiana University Press in 1972.

(10) "The middle ground of stylistics" was especially written for this volume by W. Nash (University of Nottingham) in 1975.

(11) "Registers in English teaching" by A. Davies first appeared as an article in the *Educational Review* (1968, pp. 109-122) published by the University of Birmingham.

(12) "Sociolinguistics and communicative language teaching" was read by C.N. Candlin as a paper at the 4th IATEFL conference in 1971.

(13) "The teaching of a reading knowledge of scientific and technical Japanese", an original contribution to this volume by J. Jelínek and F.C. Stork, arises from the OSTI-sponsored research carried out at the University of Sheffield between 1969 and 1972.

Part I TOWARDS A THEORY OF LANGUAGE VARIETY

Editors' introduction I

Aims of this Reader

In this anthology we are trying to bring together several strands of language studies which have expressed dissatisfaction with or distrust in the idea of language as a monolithic system.

We have chosen several extracts from important writings on language variety, and grouped them into three parts, each with an *Editors' introduction*, to put them into perspective. *Part I* is concerned with the building blocks that contribute to a more realistic theory of language variety. The subsequent *Parts II* and *III* explore the idea of language variety further. We shall want to find out which linguistic forms correlate with which situational and functional variables, how they may be described, how different varieties could be compared and taught, and so on. A *Bibliography* is intended to give a synopsis of important publications in the field of language varieties.

Our criteria for selecting contributions were as follows. They should be:

(1) relatively innovatory,

(2) of sufficient clarity and general interest,

(3) relatively unavailable in other publications,

(4) representative of the different types of approach.

The thirteen extracts vary in length, presentation, and detail, because they are taken from diverse sources:

4 are sections from books (Nos. 1, 4, 5, 9),

3 are contributions to conferences (2, 8, 12),

3 are articles in periodicals or reports (3, 7, 11),

3 are original monographs for this volume (6, 10, 13).

Universalism v. particularism

There are basically two traditions in the evolution of the study of language. One tends to regard language as an undifferentiated whole, stressing the similarities in form not only between dialects of one language, but also between different languages. We might call this the 'universalist tradition.' The second tradition, which might be labelled 'particularist', stresses variation and change in and between languages. Differences are noted and correlated with divergences in human communicative situations.

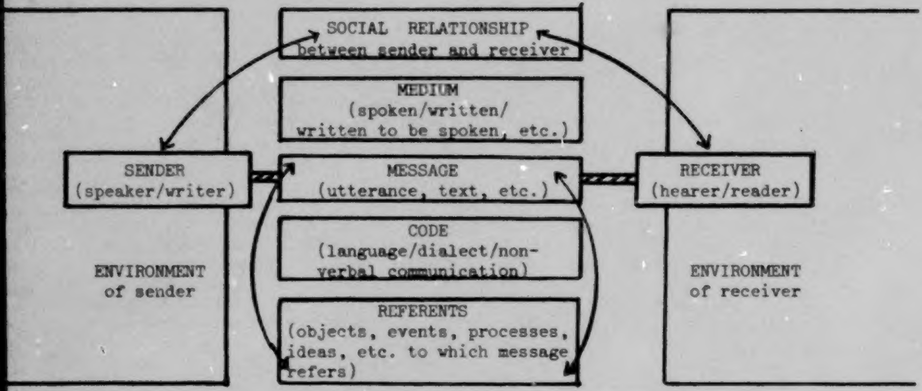
The universalist outlook is represented by Classical, Rationalist and much of Structuralist linguistic scholarship. Such an attitude is reflected in many introductory textbooks which emphasise that the linguist is primarily interested in general features abstracted from actual language data. Most structural linguistics since Saussure has attempted to discover general regularities in language which hold (a) as a norm for the usage of the whole speech community (Saussure's *langue*) or (b) the individual speaker's potential language acquisition abilities (Chomsky's *competence*). It further tempts linguists into claiming that certain features are common to all languages (Bach & Harms 1968) or ignoring those that make for differences within one (Ray 1963). But occasionally doubts have arisen as to whether such abstractions from the concrete speech event (Saussure's *parole* and Chomsky's *performance*) are really justified (Oller *et al.* 1969, Bailey 1973).

The particularist view is represented by much of diachronic or comparative-historical linguistics (cf. Vol. 12 of *Current Trends in Linguistics* ed. by Sebeok *et al.*, 1973). Dialect geographers have long studied the linguistic features that separate local communities (Pop 1950), and areal and institutional linguistics has extended these notions to wider regional and social groupings (Ellis 1966). British linguists since the work of Malinowski and Firth have for over three decades insisted that the distinction (even in theory) between 'speech' and 'language' is potentially misleading (Halliday 1971). There is a parallel concern among Prague School linguists for the observation of linguistic diversity in different communicative situations (Skalička 1948). Groups of American psycho- and socio-linguists, too, have recently explored the relationships between utterances on the one hand and their speakers and cultural settings on the other (Hymes, Fishman, Labov etc. in Giglioli 1972).

Variety in language: a communication model approach

Language is above all - and few linguists of any particular school would disagree - an instrument which serves its users for a number of distinct objectives in a number of distinct situations. Such an 'operational' definition of language may well prove to be the key to the whole issue of language variety. It is surely one of the main tasks of linguistics to identify the diverse uses to which languages may be put. Yet the difficulties are almost insurmountable, and there are very few precedents for a satisfactory summary of all the factors involved (cf. Kinneavy 1971 on 'discourse' functions).

A classification of functional varieties of language might well take as its starting point a simple communication model of the kind illustrated below.


SOCIAL RELATIONSHIP
between sender and receiver
MEDIUM
(spoken/written/
written to be spoken, etc.)
SENDER
(speaker/writer)
MESSAGE
(utterance, text, etc.)
RECEIVER
(hearer/reader)
CODE
(language/dialect/non-
verbal communication)
ENVIRONMENT
of sender
ENVIRONMENT
of receiver
REFERENTS
(objects, events, processes,
ideas, etc. to which message
refers)

The different varieties of language can be seen (usefully, if perhaps somewhat naïvely) as placing different degrees of emphasis on particular components of the communicative event.

In referent-orientated varieties, such as those appropriate to much scientific writing, the 'representational' function of language is stressed.

The predominatly social functions of language are stressed in participant-oriented or 'interpersonal' varieties. The emphasis may be on the affective states of the sender (the 'emotive' or 'expressive' function), or the main concern may be to influence the opinions or actions of the receiver ('conative' function). In yet other subvarieties, the emphasis may be on the social relationship between sender and receiver: that is, the primary (or 'phatic') function of the communicative event may be the creation, maintenance of dissolution of social links, rather than the imparting of information or the expression of individual affective states.

Varieties which are concerned primarily with the form of the message itself are clearly important when we consider the languages of literature (the 'poetic' function).

Standard v. dialect

The 'classical fallacy' in language studies has frequently been discussed in the basic textbooks (e.g. Lyons 1968, p.9). This is the assumption that a bipartite distinction into 'written'/'literary'/'formal' and 'spoken'/ 'vernacular'/'informal' standards could account for *all* variation in usage.

With the possible exception of some early forerunners (e.g. Humboldt), the division of usage into national-literate and regional-substandard remained unchallenged, even by many proponents of comparative philology (cf. Pederson 1931, Meillet 1934) and most compilers of dialect atlases (Gilliéron & Edmont 1902-1910, Jaberg & Jud 1928-1940). The complex inter-relationships with individual and social factors remained a mystery until well into the 20th century (cf. Jespersen 1925). See *Part II* below.

Extract 1 may stand as an example of how some linguists have tried to come to terms with typological 'diversity' (between related languages) and dialectological 'variety' (within one and the same language), often against the background of cultural history. In Chapter IX of his book *The Life and Growth of Language* (1875), W.D. Whitney considers 'local and class variation of language' in relation to the notion of the unity of language.

Individual style and functional varieties

Dialect geography had introduced some elaborations of the standard/nonstandard dichotomy. An even more important challenge to unified language structure came from what is now called 'stylistics', but what was at the turn of the century an undifferentiated amalgam of elements from literary criticism, political history, aesthetic philosophy and national psychology. Some scholars had cast doubt on the Neogrammarians' simplistic notion of regular sound changes (Schuchardt 1922), and this criticism merged with other currents around the turn of the century to produce what has come to be called 'idealism' in Romance philology, with such famous exponents as Croce, Vossler, Bally and Spitzer (cf. Hall 1963, Hatzfeld 1953-1966).

But it was not until the influence of the Prague School of linguists had made itself felt that style came to be regarded as the form of the textual message which is determined by the multifarious 'functions' of the language. This was achieved by a re-examination of the axioms of ancient rhetoric against some recent findings of philosophy, psychology and sociology. Several 'means-end' models were put forward (Bühler 1934, Jakobson 1961) to explain the functional differentiation of language for purposes of representation, expression, persuasion, etc.

Such work on the different communication processes was to prove eminently useful in subsequent discussions of 'narrative' literary styles (Gayton 1940, Riffaterre 1971), 'usage levels' (Kenyon 1948, Joos 1962), 'idiomatology' or idiolectal features of language (Grootaers 1952, Friedson 1956), a typology of 'texts' (Jakobson 1960, Koch 1972), and the social aspects of the 'speech event' (Hymes 1962, Steger 1971). Another line of thought leads to the distinction, made by philosophers since Ogden & Richards and Carnap, between syntax and semantics on the one hand and pragmatics on the other. 'Pragmatics' covers those extralinguistic factors which may have a bearing on the organisation of discourse, a question that is relevant in any attempt to formulate norms of usage and to develop teaching aids for composition. See *Parts II* and *III* below.

Extract 2 is one of the first adaptations of these ideas to the question of how language can be differentiated to help us perform a number of quite distinct communicative acts. In a contribution to a seminar on the linguistic and cultural status of literary Czech, B. Havránek (1932) developed some useful criteria for distinguishing several different 'styles' of the standard language, taking into account such fundamental factors as information content, writer's intent and reader's response.

Things, topics, terminologies

Language changes not only according to the background and social relations of speaker and hearer, but also according to the subject-matter of their interchange. Around the turn of the century and especially among Romance Philologists such as Schuchardt and Meringer, the so-called *Wörter-und-Sachen* school had produced some valuable insights into the relationship between man's ethnocultural environment and the words he uses to control it (Iordan/Orr/Posner 1970), a tradition which is still alive in certain branches of linguistic anthropology under such labels as 'language and culture' and 'folk taxonomies' (cf. Conklin 1962, Berlin *et al.* 1968). Although originally tied to regional dialectology and folklore studies, this movement eventually matured into a rather specialised study of the diachronic evolution of sets of terms used in special fields, thus laying one of the foundations for specialised lexicography (e.g. on 'argots': Dauzat 1929, Maurer 1967).

One of the gross simplifications that has been with us for some time is the polarisation between the 'two cultures', expressed by the arts-based literary and the science-based technical styles of language. Even Bloomfield's (1939) account of the use of language in science is not free of trivial dichotomies, such as that of *informal* v. *formal discourse*, but it did attempt to come to terms with the syntactic and lexical characteristics of scientific prose.

Influenced by a genuine desire to contribute to international understanding among the practitioners of science and technology across language barriers, a small minority of scholars and industrialists have been interested in the possibilities of stabilising and standardising technical nomenclature all over the world. One of the most influential figures in this movement has been the Austrian engineer Wüster whose book *Internationale Sprachnormung in der Technik* (1931) took the bold step from the linguists' and philosophers' interest in the use of language in scientific discourse to the technologists' and politicians' concern for the efficient use of language in efficient scientific communication. It is interesting to note at this point that the early decades of our century had been a period of intensive and at times enthusiastic efforts to come to grips with national and international codification of terms in many disciplines, not least in linguistics itself, where the problem of having to devise a 'metalanguage' to talk about language is producing a constant stream of terminological dictionaries (cf. Pei 1966, Hartmann 1973b, Drozd & Seibicke 1973). See *Part II* below.

Extract 3, a paper by E. Wüster (1955b), illustrates the assumption that specialists in particular disciplines must standardise their conceptual tools and terms lest they drown in a morass of conflicting idiolectal and dialectal innovation. This spirit has since led to the creation of several inter-governmental agencies and committees for the coordination of technical terminology by international agreement. The aim is to control excessive idiosyncrasies in nomenclature by voluntary standardisation of the conceptual and terminological frameworks of specific disciplines, assuming that things and ideas have arbitrarily chosen names, linked by definitions, and that there is a one-to-one correspondence between concept and term.

Situation and register

What is required is a synthesis of all these views to produce a theory of language that *can* account for variation. We need a realistic assessment of the factors which influence variety in language, whether they be individual ('style'), regional ('dialect'), social ('usage levels'), topic-based ('restricted languages') etc. Some advances have been made along these lines in the last two decades under the respective labels 'institutional linguistics' (Hill 1958), 'ethnolinguistics' (Hymes 1962) and 'sociolinguistics' (Pride & Holmes 1972).

It is probably the merging of the (largely American) anthropological and (largely British) sociological perspectives on language that produced the first tentative classifications of variety, e.g. that by Gregory (1967). We need to recognise several scales or axes along which linguistic variety may exhibit itself. Each may be considered as a 'cline', graded from one extreme (e.g. most formal, most technical) to another (e.g. most informal, least technical). Connected with this is the tricky problem of whether there is such a thing as a common core in language that is used - or at least understood - by all speakers in all situations, or whether different restricted languages are mutually exclusive. See *Parts II* and *III* below.

Extract 4 is from one of the most satisfactory accounts of the various constituents of language variety published so far. Under the label *register*, a term taken from Reid (1956), J. Ellis & J.N. Ure (1969) discuss 'variations according to use' in terms of the four dimensions of 'field' or subject-matter, 'mode' or medium of representation, 'role' or genre, and 'formality' or participant status, with ample references to the relevant literature and additional comments on problems of comparing and teaching registers.

Multiple codes and language diversity

Some of the forerunners in the study of language variety discussed divergence and convergence phenomena among related languages in terms of genetic typology and geographical affiliation. However, 'language diversity' remained an *inter*lingual concept (Greenberg 1956, Ferguson & Gumperz 1960) long after Weinreich's epoch-making book on 'languages in contact' (1953) had made the point that most speech-communities are plurilingual within themselves. Since then conferences and monographs on bilingualism and creolisation have continued to set the record straight (Stewart 1962, Le Page 1961 and 1972, and Kelly 1969). Linguists have been warned not to assume that 'unilingual perfection' is the rule rather than 'imperfect multilingualism' (Wandruszka 1971).

International communication often involves the services of translators and interpreters. Not surprisingly, some linguists with experience in such interlingual operations (to which should perhaps be added that of foreign language teaching, see *Part III* below) have demonstrated an understanding of language as a diversified and adaptable tool and criticised the simplified monosystemic view of language as propounded in contemporary writings. An interesting side-issue concerns the question whether multilingualism and other language contact situations can be regarded as special cases of 'register' (Denison 1971). The question of whether and how much bilingualism contributes to 'change' in language has been investigated by scholars like Haugen (1956), Pike (1960) and Bright & Ramanujan (1964).

But the native speaker not only has the option of using different languages - he very often chooses to reinforce, or even replace, verbal language by the use of other, non-verbal 'codes' such as gesture, posture, tone of voice and facial expression. Great strides have been made since the first cautious explorations of 'paralinguistics' and 'kinesics' (cf. Birdwhistell 1952, Trager 1958, Hall 1959, Pittenger *et al.* 1960, Scheflen 1972).

Extract 5 is from the introduction to a collection of papers on language diversity in Canada, edited by R. Darnell (1971), dealing with the complex problem of mixed linguistic and cultural loyalties and their impact on society, politics and education.

Extract 1 "Dialects"

by W.D. Whitney (1875)

(...) We must be careful not to overrate the uniformity of existing languages; it is far enough from being absolute. In a true and defensible sense, every individual speaks a language different from every other. The capacities and the opportunities of each have been such that he has acquired command of a part of English speech not precisely identical with any one else's: the peculiarity may be slight, but it is certainly there. Then, what is yet more obvious and yet more important, the form of each one's conceptions, represented by his use of words, is different from any other person's; all his individuality of character, of knowledge, education, feeling, enters into this difference. And yet again, few if any escape the taint of local and personal peculiarities of pronunciation and phraseology, peculiarities which, because more conspicuous than the others, are more often noticed by us and called dialectic. This last shades off into the more wide-spread and deeper differences of district and class; every separate part of a great country of one speech has its local form, more or less strongly marked - even where, as in America, there are no old inherited dialects, of long standing, such as prevail in Britain, in Germany, in France: in short, almost everywhere. Every class, however constituted, has its dialectic differences: so, especially, the classes determined by occupation; each trade, calling, profession, department of study, has its technical vocabulary, its words and phrases unintelligible to outsiders; the carpenter, the iron-maker, the machinist, the miner, not less than the physician, the geologist, or the metaphysician, has occasion every day to say many things which would not be understood by a man of any of the other classes mentioned, if not exceptionally well-informed. Then there are the differences in grade of education; the highly cultivated have a diction which is not in all its parts at the command of the vulgar; they have hosts of names of objects and ideas of educated knowledge, which (like *dahlia, petroleum, telegraph,* instanced above) may perhaps some time work their way down into the lower rank, becoming universal, like *is* and *head,* and *long* and *short,* instead of class-words only; and, yet more especially, the uncultivated have current in their dialect a host of inaccuracies, offences against the correctness of speech - as ungrammatical forms, mispronunciations, blunders of application, slang words, vulgarities; all of these, perhaps, analogous with alterations which the cultivated speech, as compared with its predecessors, has undergone, and some of them destined to become at a future time the established usage of the whole language; but as yet kept down in the category of errors by the resistance of the higher classes to their acceptance and use. Finally, there are the differences of age: the nursery, in particular, has its dialect, offensive to the ears of old bachelors; and older children have their language at least characterised by limited vocabulary.

Every one of all these differences is essentially dialectic: that is to say, they differ not at all in kind, but only in degree, from those which hold apart acknowledged dialects. They all fall, as regards their origin, under the classes of change already laid down: they are deviations from a former standard of speech which have hitherto acquired only a partial currency, within the limits of a class or district; or they are retentions of a former standard, which the generality of good speakers have now abandoned. In illustration of this latter class, we may note in passing that no small number of what the English stigmatise as Americanisms are cases of survival from former good usage, and that, on the other hand, much of what we regard as the peculiarities of Irish pronunciation is also old English, more faithfully preserved by the Irish than by the more native speakers. Of course, it is as wrong to be lagging in the rear of the great moving body of the usages of a language as to be rushing on in advance, or flying off to one side. When the speech of the best speakers changes, those who do not conform have to be ranked in a lower class.

And yet, despite all these varieties, the language is one, and one for the simple reason that, though the various individuals who speak it may talk so as to be unintelligible to one another, they may also, on matters of the most familiar common interest, understand one another. As the direct object of language is communication, the possibility of communication makes the unity of a language. No one can define, in the proper sense of that term, a language; for it is a great concrete institution, a body of usages prevailing in a certain community, and it can only be shown and described. You have it in its dictionary, you have it in its grammar; as also, in the material and usages which never get into either dictionary or grammar; and you can trace the geographical limits within which it is used, in all its varieties. (...)

Extract 2 "Functional Styles"

by B. Havránek (1932)

(...)In popular speech as well, the use (selection) of linguistic devices is in the concrete act of speech determined by the *purpose of the utterance*; it is directed towards the function of the act of speech. We can see a considerable difference in linguistic devices, according to whether it is, for instance, a matter-of-fact everyday communication or the occasional (solemn) recital of an event, or whether it is a conversation among contemporaries or speech to children or to one's elders (cf., for instance, the immediate morphological differences in the use of grammatical person and number in terms of the person addressed), not to mention the lexical differences stemming from different occupations. In the standard language the linguistic devices are likewise determined in terms of the purpose served by the concrete act of speech, but with this difference: the functions of the standard language are more richly developed and more precisely differentiated; in folk speech (for a given community only, of course) practically all the means of expression are shared by everyone, whereas the standard language always will contain some linguistic devices not in general use.

I do notwant to start here by enumerating schematically all the different functions of the standard language, but it should be made clear to everyone that the fields in which the standard language is used are more varied than is the case for folk speech and are, in part, such that the devices are, for instance, not adequate for purposes of a serious coherent presentation of epistemology or higher mathematics. On the other hand, in areas where folk speech is commonly used, the standard will serve more or less equally well. Utterances in folk speech can on the whole be assigned to the so-called *communicative* function, that is they belong in the area of everyday communication; in the area of technical communication folk speech includes only some lexical areas, and at times may acquire an aesthetic function. The area of *workaday technical* communication is almost entirely reserved to the standard language, and that of *scientific technical* communication, completely so; likewise, the regular foundation of *poetic language* is the standard.

In the *communicative function* proper to the domain of folk speech, even a member of a class which ordinarily uses the standard for speaking and writing may use a form of folk speech, such as the colloquial standard or a local or class dialect, to the extent to which he knows how to speak it. But the standard can be used as well, usually in its so-called *conversational form*, that is, in the form used precisely in conversation only (the conversational functional dialect). This conversational form is not, for Czech any more than for other languages, identical with the colloquial standard, although it shares some elements with it and often has some local coloration as well in spite of the fact that for Czech it is not very stable, and therefore has a rather variable scale of transition. The difference between the two is pointed up, among other things, by the conversational and social clichés included in the former which function almost as a mark of class. The difference between these and the clichés of folk speech is considerable, as shown, for instance, by greeting formulae, terms of address, and the like. One would therefore be tempted to call this conversational form just another class dialect, but from that standpoint the standard as a whole is but a class dialect. We have spoken above about its exclusiveness in terms of class, different at different periods and in different nations: these social clichés are likewise a measure of its exclusiveness, or conversely, of its penetration into the broadest strata.

The *modes* and *situations* of the utterances are likewise more varied for the standard than they are for folk speech: folk speech is usually limited to oral communication and private conversation; the standard language, which is, of course, not excluded from utterances of the former kind, then is usually made to serve for various kinds of public utterances and written communication.

The *functional and stylistic differentiation of language* is most conspicuously based on a utilisation of its lexical and syntactic aspects, but phonological and morphological devices are used as well, though to a lesser extent. The latter are based primarily on variation in the phonological and morphological structure (the phonemic and morphemic patterns), not counting the very clear-cut functional pronunciation styles treated elsewhere. In terms of phonology and morphology, devices borrowed into the standard from another norm, especially from the norm of the popular colloquial standard (the vulgar layer which is, of course, also found in the lexicon), are often used for differential purposes: in phonological terms, cf., for instance, functionally different doublets such as úřad v. ouřad 'office', rýpat v. rejpat 'dig', 'gripe', čichnout v. čuchnout 'smell', and the like, or words such as ouško 'ear' (diminutive), upejpat se 'be coy' and the like for which there is no equivalent in the standard; here also belongs the functional utilisation of certain phoneme groupings such as /č/, /šť/, followed by /u/, /ou/ (čuměti 'gape', šťourati 'poke', and the like), which are uncommon in the standard, on the phonemic side, and such doublets as tlucte, a bude vám otevřeno 'knock, and it will be opened for you' v. netlučte toli 'don't make so much noise', or the endings -i v. -u for the 1st p. sg. for verbs such as káži, češi, piji, v. kážu, češu, piju 'preach', 'comb', 'drink' and the like, on the morphological side.

Utilised also are such formal and, in part, syntactic doublets as arise in the norm of the standard as well as in the norm of folk speech, from the fact of the coexistence in them, in some respects, of an older and a newer stratum. Thus, a possible genitive instead of an accusative after a negative verb, or doublets of the type béře v. bere 'he takes' and the like, can be used for functional differentiation where one form is clearly archaic or bookish in the language. Stylistic variety, that is, avoidance of tedious repetition of the same form, as well as different rhythmic effects, can, for instance, be achieved by using the two forms of the infinitive ending, -ti and -t, doublets which are otherwise interchangeable in the standard.

These various devices, primarily lexical and syntactic, of functional and stylistic differentiation do not, however, consist merely of an inventory of different words or grammatical forms, but also of different modes of utilisation of the devices of the language or their special adaptation to the different purposes of the standard language.

The major modes of this special utilisation of the devices of the language in the standard and in its various functions can be designated, on the one hand, as the intellectualisation of these devices, and on the other hand, as their automatisation and foregrounding in terms of their functional differentiation.

Intellectualisation

By the intellectualisation of the standard language, which we could also call its rationalisation, we understand its adaptation to the goal of making possible precise and rigorous, if necessary abstract, statements, capable of expressing the continuity and complexity of thought, that is, to reinforce the intellectual side of speech. This intellectualisation culminates in scientific (theoretical) speech, determined by the attempt to be as precise in expression as possible, to make statements which reflect the rigour of objective (scientific) thinking in which the terms approximate concepts and the sentences approximate logical judgments.

This intellectualisation of the standard language affects primarily the lexical, and in part, the grammatical structure. (...)

In terms of the lexicon, the intellectualisation of the standard manifests itself not only by an expansion of the vocabulary by new terms, the abstract meaning content of which is alien to the common man, such as poznatek 'bit of knowledge', pojem 'concept', představa 'idea', 'picture', jsoucno 'being', podmět 'subject', přísudek 'predicate' and the like, but also by changes in the structure of the lexicon since, although in the language of science, law, administration or business we talk of things in life around us, we express ourselves differently from the way we would in ordinary conversation:

(a) we need *unequivocal* words: hence, for instance, the use in biology of the word živočich 'animal' instead of the word zvíře with its rather indefinite meaning content; in electrical engineering the word lampa 'lamp' is not sufficient and there is need for the word svítidlo 'lighting fixture', and the like;

(b) special distinctions are needed, such as příčina v. duvod v. podnět 'cause', 'reason', 'stimulus', in legal language přestupek v. přečin v. zločin 'contravention', 'délit', 'crime', or vlastník v. držitel v. majitel 'dominus' 'possessor', 'detentor', and the like;

(c) abstract summarising terms are needed, such as plodina 'crop', rostlina 'plant', vozidlo 'vehicle', výrobek 'product'.

The intellectualisation of the standard language is also brought about by the need to express the *interrelationships* and *complexity of thought processes*, especially those of judgement and consideration. This done, first of all, by the creation of words or their adaptation to express various relationships, such as those of existence, possibility, necessity, the relations of causality, finality, parallelism, and the like, as shown by nouns such as účel 'purpose', záměr 'intent', výsledek 'result', důsledek 'consequence', následek 'sequel', as well as many verbs, adjectives, adverbs, and prepositions such as docíliti 'achieve' next to dosáhnouti 'reach', odpovídati 'correspond', sestávati 'consist', bezúčelný 'purposeless', bezvýsledný 'without result', bezpodstatný 'unsubstantiated', následkem 'in consequence of', za účelem 'for purposes of', and the like. This leads to an expansion in the standard language, or a formation and specialisation, of word-formative patterns; thus, to express abstracted concrete events transferred into the category of substance of quality, verbal nouns (ending in -ní), participial expressions, and particularly verbal adjectives (ending in -cí), nomina agentis (ending in -tel and other suffixes), adjectives ending in -telný, and the like, the standard language tends in general towards nominal groupings brought about by combining nouns with attributes or by nominal predication using empty verbs.

In doing this, intellectualisation, of course, is affecting the grammatical structure of the language and manifests itself particularly in sentence structure by the preference of the standard for the normalised sentence with the two constituents, the subject and the predicate, clearly differentiated formally so that linguistics, as long as its syntax was based on the standard only, saw this sentence type as the normal sentence type in general. The desire to achieve parallelism between the grammatical and the logical structure, for instance, contributes to the expansion of the passive voice in the standard. And finally we see in the standard, instead of the free sequence of sentences in the folk speech, a tightly knit and integrated structure of sentences and compound sentences with an elaborate hierarchy of superordination and subordination expressing different relations of causality, finality, parallelism, and the like; this tendency mainfests itself in the specialisation of conjunctions - thus, for instance, where in folk speech subordinate causal clauses are introduced by the multivalued conjunctions že 'that', dyž (když) 'when', in the standard they can be marked specifically by the conjunctions protože, poněvadž 'because'. (...)

Automatisation and foregrounding

Another mode of the special use of the devices of the language to meet the various functions of the standard has been designated by me as the differing automatisation and foregrounding of the devices of the language, sometimes of the same ones.

What do we understand by the different automatisation and foregrounding of the devices of the language? Let me start with an example taken from the relationship between different languages where these differences are most conspicuous. If we, for instance, translate the common Russian greeting formula zdravstvuyte into Czech by the phrase bud'te zdráv 'be healthy', everyone who does not know the literal meaning of the greeting zdravstvuyte , but knows its use, will immediately note that such a translation is unsuitable; in Czech this greeting has a whole series of equivalents. Why is this? A common Russian greeting form has been translated into Czech by an uncommon form, that is, we have changed an automatised expression into a foregrounded one although, of course, the phrase bud'te zdrav for many other purposes, for instance at the end of a letter, in saying 'goodbye' and the like, will be a completely common and automatised expression.

Or, to cite the most popular example. When someone translates the French conventional formula s'il vous plaît into Czech as líbí-li se vám 'if you like', he has of course translated each individual word correctly, but has completely changed the meaning of the formula as a whole since the French formula has an automised meaning more or less in the sense of Czech prosím 'please'.

By automatisation we thus mean such a use of the devices of the language, in isolation or in combination with each other, as is usual for a certain expressive purpose, that is, such a use that the expression itself does not attract any attention; the communication occurs, and is received, as conventional in linguistic form and is to be 'understood' by virtue of the linguistic system without first being supplemented, in the concrete utterance, by additional understanding derived from the situation and the context.

We thus call automatisation what, in the cases of phrases, is sometimes called the 'lexicalisation' of phrases. (...) In other words, we can speak of automatisation only in those cases where the speaker's intent does not fail to obtain the desired effect, where the link between intent and effect is not broken, unless there is a change in the environment to which the utterance was addressed, or unless we deal with different periods.

By *foregrounding*, on the other hand, we mean the use of the devices of the language in such a way that this use itself attracts attention and is perceived as uncommon, as deprived of automatisation, as 'deautomatised', such as a live poetic metaphor (as opposed to a lexicalised one, which is automatised).

Conversation yields good examples of both automatisation and foregrounding: all conventional conversational devices are of course automatised, but to liven up the conversation and to achieve surprise (wonderment) foregrounded units are used, that is, linguistic devices that are uncommon in everyday speech, or are used with an uncommon meaning, or in an uncommon context (I am not concerned with content). They can, in accord with the fashion, be either the devices of poetic language or of slang, or other devices, perhaps even those of the language of science.

In a scientific treatise the author uses, on the one hand, words and phrases which have accurate meaning for specialists in the field, by scientific definition or codification or convention, so that he does not have to worry about their meaning, that is, automatised expressions. On the other hand he uses new expressions which, though uncommon, have been given a definitely delimited meaning by himself or his school of thought and which he has therefore automatised at least for purposes of a given work or a given school, in the sense of having made them intelligible. If, however, such expressions and modes of expressions are included in utterances designed for non-specialists, they lose their original automatisation in the new context (which in the old context we might have called 'technical'), and become either unintelligible, if they are devices totally alien to the layman, or they become automatised in an entirely different way, if, indeed, they are not foregrounded. Thus, every technical term, of course, has an automatised meaning, but if it is transferred into a completely alien environment, it may be foregrounded immediately and even become a swearword (cf. the use as invectives of words such as *synfonie* 'symphony' and *fysiko* 'physics').

Such a transfer of the automatisations of a certain field into an entirely uncommon environment is at the root of many verbal jokes, which are instances of foregrounding. (...)

In conclusion to this section on the functional differentiation of the standard language, let me give a *schematic survey of this differentiation.* It is not a classification of all the functions of language, but a systematic listing mainly of those differences which have been mentioned and which are most significant for the various purposes of the standard language. It therefore does not include the otherwise important and basic difference between the emotional and the intellectual aspect of verbal responses, nor that between overt and subvocal speech; for these differences, see at least the thesis on the functions of language presented by the Linguistic Circle of Prague to the First Congress of Slavic Philologists, Prague (*TCLP* 1929, I.14 ff.).

Functions of the standard:		*Functional dialects:*
1. communication	communicative	conversational
2. workaday technical		workaday (matter-of-fact)
3. theoretical technical		scientific
4. aesthetic		poetic language

Re 1. unified semantic plane
free relation of lexical units to referents
incomplete verbal responses
intelligibility, given by the situation and by conversational automatisations

Re 2. unified semantic plane
relation of lexical units to referents definite by convention (terms)
relatively complete responses
definiteness, given by defined or codified automatisations (terms and formulae)

Re 3. unified semantic plane
relation of lexical units to referents accurate (concepts)
complete responses
accuracy, given by defined or codified automatisations

Re 4. complex (multivalued) semantic plane
relation of lexical units to referents, completeness and clarity of the utterance determined by the structure of the literary work and given by its poetic foregrounding

Functional styles of the standard language:

A. According to the *specific purpose* of the response:
   1. matter-of-fact communication, information
   2. exhortation (appeal), suasion
   3. general explanation (popular)
   4. technical explanation (exposition, proof)
   5. codifying formulation

B. According to the *manner* of the response:
   private - public
   oral - written

oral: 1. private: (monologue) - dialogue
      2. public: speechmaking - discussion

written: 1. private
         2. public: (a) notice, poster
                    (b) journalistic
                    (c) book writing (magazine writing)

(...)

Extract 3 "Standardised Terminologies"

by E. Wüster (1955)

Why standardisation of terms?

(...) 'To standardise' means to discuss and to agree upon the general adoption of what is best among alternative possibilities and arrangements. As regards popular language, the inertia which both vocabulary and grammar oppose to any intervention is so strong that usually it is a mere waste of time to attempt modifying the usage of the popular language by way of regulations or resolutions; but as regards technical language the case is very different, for here the governing factor is utility as a medium for intelligent reasoning. Furthermore, those who have occasion to use the sort of technical language that belongs to any given field constitute only a small fraction of the linguistic community as a whole. It is these two facts which make it possible to reach agreement in the standardisation of technical terms.

On the other hand, it is just in respect of technical terms that the necessity exists for standardisation. The reason for this is that technical communication requires much greater precision than does popular discussion; and such standardisation is needed most of all in technology because, in that field, thousands of new concepts emerge every year on which names are bestowed from all sides. So prolific and various has technical intellectual work now become, as compared with previous centuries, that natural and uncontrolled evolution of technical terms can no longer be relied on to ensure unambiguity and efficiency in the use of language. Fortunately, however, it is also the case that systematic control over nomenclature can more easily be secured at the moment of birth of the concepts and terms than ten years later.

Terminological standardisation pursues two different kinds of object: the standardisation of names for individual concepts on the one hand and of terminological principles on the other. Here the standardisation of individual terms, and in particular of those contained in national terminologies, will be considered first.

National terminologies

The national organisers of technical terminological standardisation are the respective national standardising associations, many of them known as 'standardising committees'. In each of the larger countries such a standardising association exists and has affiliated to it a great number of technical committees. The British Standards Institution, for instance, employs at its headquarters a staff of about 300 persons, and in addition to this the number of subject experts - supported mostly by industrial firms - who contribute to its work in an honorary capacity is perhaps twenty times as large. Most of these experts, however, are not devoting themselves to terminological standardisation alone. (...)

As early as 1931 Wüster, in his *Internationale Sprachnormung*, was able to mention more than 29 linguistic regions of the world in which at least a beginning had been made in this kind of activity. In 1955 UNESCO published a *Bibliography*, prepared under his direction, recording all national terminological standards then in existence. This bibliography gives references to about 1,500 standards in 36 countries (1,376 entirely and 182 partly terminological), as well as to 23 publications regarding terminological standards. The division of the standards as between countries is as follows (Wüster 1955a):

Universal Decimal Classification		Publications	Universal Decimal Classification		Publications
(100)	international	20	(491.1)	Iceland	2
(100.3)	several countries	6	(492)	Netherlands	145
(41)	United Kingdom	134	(493)	Belgium	39
(43)	Germany	312	(494)	Switzerland	43
(436)	Austria	25	(497.1)	Yugoslavia	7
(437)	Czechoslovakia	11	(497.12)	Slovenia	3
(438)	Poland	25	(498)	Rumania	81
(439)	Hungary	15	(52)	Japan	2
(44)	France	238	(54)	India	15
(45)	Italy	46	(569.4)	Israel	17
(46)	Spain	35	(68)	Union of S. Africa	2

Universal Decimal Classification		Publications	Universal Decimal Classification		Publications
(469)	Portugal	8	(71)	Canada	1
(47)	Soviet Union	59	(72)	Mexico	15
(471.1)	Finland	34	(73)	USA	66
(474.2)	Estonia	1	(81)	Brazil	18
(481)	Norway	21	(82)	Argentine	3
(485)	Sweden	67	(83)	Chile	20
(489)	Denmark	23	(899)	Uruguay	14
			(94)	Australia	8

International terminologies

The agency primarily concerned in promoting international technical terminological standardisation is the International Organization for Standardization (ISO), which forms a link between the national standardising associations. It established in 1952 a special technical committee for the international standardisation of terminology, entitled ISO/TC 37: Terminology (Principles and Co-ordination), the secretariat of which is provided by the Austrian standardising association (Osterreichischer Normenausschuss, ONA).

Up to now the most significant work actually completed in the field of international technical standardisation of terminology is, however, the six-language *International Electrotechnical Vocabulary* prepared by the International Electrotechnical Commission (IEC) which has since become a section of ISO. This vocabulary, covering some 2,000 concepts, was first published in 1938 after 30 years of work.

For some years past UNESCO, too, has concerned itself with the encouragement of international terminological work, especially as regards the publication of technical vocabularies. UNESCO furnishes financial aid towards the cost of printing these and it also issues guiding principles for their compilation. A principal means whereby it endeavours to secure the observance of these principles is the support which UNESCO gives to the dictionaries programme of the Union of International Engineering Organisations (Union des Associations techniques internationales, UATI).

Up to May 1953, UNESCO was helping in various ways the production of altogether 24 multilingual dictionaries or vocabularies, this total including seven to which it had lent financial aid either directly or through UATI. The projects in question included those undertaken by the following international organisations:

International Electrotechnical Commission (IEC) (2nd edition), through UATI;
Permanent International Association of Navigation Congresses, through UATI;
International Commission for Large Dams;
International Gas Union, through UATI;
International Conference of Testing and Research Laboratories, through UATI;
Council for International Organisations of Medical Sciences;
International Welding Institute, through UATI.

These dictionaries or vocabularies made in accordance with the principles recommended by UNESCO contribute to standardisation only indirectly, in the sense that UNESCO recommends that in such publications those terms which have already been standardised should be specially marked to that effect.

The same principle has also been followed in the *Vocabulary of Machine Tools*, giving definitions and illustrations, now completed under the direction of E. Wüster and about to be published under the aegis of the Economic Commission for Europe (ECE) of the United Nations, again with the assistance of UNESCO. (...)

Standardisation of terminological principles

Initially, technical linguistic standardisation was limited to that of individual terms and of particular terminologies. Soon, however, the organisers of such work were led to recognise the necessity for agreeing upon uniform working principles to be observed by those collaborating in it; that is to say, principles for the formation of terms and for their registration in technical vocabularies. Such a need had been recognised many decades earlier by botanists, zoologists, medical specialists and chemists, who have accordingly agreed among themselves, both nationally and internationally, on complete sets of rules for the formation of technical terms.

Terminologists regard language as a system of designations (perceptible to the senses) making it possible to symbolise a system of concepts (existing only in thought).

The terminological principles which require standardisation can, accordingly, be related to a scheme of considerations somewhat as follows:

1. Concepts
    - 1.1 Formation of concepts
        - 1.11 The concept
        - 1.12 The system of concepts
        - 1.13 Characteristics of concepts
    - 1.2 Description of concepts
        - 1.21 Description in words, i.e. by way of definition (determination, enumeration or comparison)
        - 1.22 Imitation, particularly by way of illustration
2. Terms (= names)
    - 2.1 Outer form of terms
        - 2.11 Origin of word elements (= morphemes)
        - 2.12 Stock of word elements
    - 2.2 Inner form of terms
        - 2.21 Word combinations (by grouping, composition, derivation)
        - 2.22 Transfer of concepts
        - 2.23 Loan translations
    - 2.3 Description of terms (= writing)
3. Co-ordination of concepts with terms (correspondence)
    - 3.1 Kinds of co-ordination (especially uniformity of language)
    - 3.2 Description of the co-ordination (vocabularies or dictionaries)
4. Use of concepts in speaking
    - 4.1 Choice of the degree of abstraction
    - 4.2 Context

Even the predecessor of the ISO Committee, which was the old Technical Committee ISA 37 (Terminology) founded in 1936, had worked on the development of terminological principles. In doing so it was led to handle two objects separately, namely the internationalisation of names and the compiltation of vocabularies, and the following divisions of the tasks ensued:

(a) Rules for selecting terms
(b) International unification of terms
(c) Monolingual vocabularies
(d) Multilingual vocabularies

The Secretariat of ISO/TC 37 has taken over these main headings which are suited also for the arrangement of the present report.

Rules for nomenclature

The draft of rules which had been worked out before the last war by the old Technical Committee ISA 37 (Terminology) treated the terms in its first half, and the concepts in the second half. In 1942 the Netherlands Standardising Committee also brought out a book of nomenclatural rules, confined mainly to morphology, i.e. to the outer form of words.

Current terminological work repeatedly confirms, however, the fundamental fact which Weisgerber (1955) has worked out in a most convincing way, the fact that what matters most in language is not the outer form of words but the underlying system of concepts. It is impossible to standardise terms in any useful way without previously or at the same time having systematised all the relevant concepts, as indicated above.

This was realised in drawing up the draft rules of nomenclature which were published by the German standardising association DNA in 1953 (under reference DIN 2330). The arrangement of this draft calls for improvement in that the section relating to definitions comes after the section relating to terms; the definitions ought, however, to be treated before the question of terms, as is indicated in the scheme above. If that is done, a natural order is realised, in accordance with the following pattern; the section on formation of concepts, 1.1, shows how concepts are formed and systematised by variation of characteristics. Then in the section on definitions, 1.2, it is shown how the characteristics are to be described in language by means of definitions. Finally, section 2 on terms indicates how definitions are abbreviated to constitute terms; according to the degree of abbreviation the terms are word groups, compound words or word derivations.

The preferred order for 'technical characteristics' provides an important example of a technical nomenclatural rule:

(a) inherent (= perceptible) characteristics, such as form, material, colour, temperature;
(b) characteristics of use (application), such as manner of performance, field of use, position when installed;
(c) characteristics of origin, such as mode of production, inventor, provenance.

Following this scale, a technical concept ought, where possible, to be formed and named in accordance with 'inherent'characteristics (a), that is, according to characteristics which anybody, such as for instance a storekeeper, can himself perceive when handling the object without needing to know anything about its use or origin (such as who invented it). On this principle, standardisation has resulted in sucy nomenclature changes as the following:

> *Scheibenkeil* 'disc wedge' instead of *Woodruffkeil* 'Woodruff wedge'
>
> *Wirbelströme* 'eddy currents' instead of *Foucaultströme* 'Foucault currents'.

In any given case where naming by reference to perceptible characteristics (a) is not possible, naming according to use (b) is to be preferred to naming according to origin (c).

International unification of terms

(1) Unification of concepts. Most people, when they hear of international terminological standardisation, suppose that this connotes only the introduction of foreign words or artificial words. In point of fact, however, the most important objective of international terminological standardisation is international unification of the national concepts and systems of concepts. Many examples of such unification are provided by the *International Electrotechnical Vocabulary* already mentioned.

(2) Unification of the semantic form. A second object of international standardisation is unification of the 'inner form' of terms. Most terms are not word elements (morphemes),

used with their fundamental meaning, but combinations of words or words with transferred meaning. The fundamental meaning of such expressions is what Marty has described as the 'inner' (or 'semantic') form of the terms. Unification as regards the inner form results, therefore, in what Mauthner has described as 'loan translations'.

(3) *Unification of the outer form*. What comes last of all, whether in scope or in importance, is the unification of outer forms of terms, that is their form as spoken or written. A significant contribution to this part of the problem has been made in the *Interlingua Dictionary*[4] published in 1951 as the result of research proceeding for some decades under the aegis of the International Auxiliary Language Association (IALA) in New York, led by the linguists Collinson, Stillman, Gode, Martinet, and again by Gode.

When in 1936 the Technical Committee ISA 37 (Terminology) began to concern itself with the question of international technical terms, representatives of several countries considered that a solution might be found in the use of 'code words' formed in a similar manner to Esperanto words. It soon became clear, however, that this solution met with almost unanimous opposition from standardising experts. The reason lay in the fact that Esperanto words such as *konuso* ('cone', in German 'Kegel'), *konus/a* ('conical', in German 'kegelförmig'), *Konus/eco* ('conicity', in German 'Konzität'), differ unnecessarily from the alternative international forms already current ('cone', 'conic', 'conicity').

The discussion which went on during the last few years before the war made it plainer still that the purposes of international terminological standardisation required some other approach. This might be a kind of terminological key in which are assembled the most important elements of the technical terms already internationally current, in such a way that any desired number of new formations might be formed by interpolation or extrapolation. The IALA system comes very close to that purpose. The words *cono, con/ic, con/ic/itate,* for instance, are understandable by anyone. They have been formed from already known elements by applying simple and known rules. Terms so coined can be transposed into national languages, or vice versa, by the simple observance of known rules. It should be stressed that the outcome of the research by IALA described in the *Interlingua Dictionary* relates not only to the outer form of terms but that the semantic side of the matter is carefully discussed. For instance, the IALA Dictionary indicated which meanings of such 'pseudointernational' words as *actual, fraction, parterre,* can be regarded as international.

Since the war, ISO/TC 37 has not discussed the internationalisation of outer form.

Monolingual technical vocabularies

Most of the principles applicable to the compilation of monolingual technical glossaries can be derived from the principles for multilingual vocabularies. Thus the same lexicographical symbols ought, as far as possible, to be used in both kinds of publication. The information which is contained in monolingual technical vocabularies ought to be capable of use as an ingredient in corresponding multilingual vocabularies, as far as possible.

Multilingual technical vocabularies

(1) Basic edition. Technical Committee ISA 37 (Terminology) laid down guiding principles for the compilation of vocabularies as early as 1939.

The Secretariat of Committee ISO/TC 37 has brought the arrangement then proposed forward for discussion in a somewhat modified form:

(a) Every concept should be defined.
(b) Every concept should, wherever possible, be shown in an illustration.
(c) Technical vocabularies should be arranged in the logical order of the concepts, not in alphabetical order.
(d) Every entry should be capable of record on a filing slip or card. With this object, wherever possible, each entry should be contained in standard format A 7, whereby eight entries together will be of format A 4 (210 mm x 297 mm), actually twice the size of the reproduction here.

A 'systematic vocabulary' of this kind must, of course, have appended to it an alphabetical index.

(2) Symbols. The work of the two committees ISA 37 and ISO/TC 37 up to the present date has led also to the development of lexicographical symbols. These include, for instance, symbols for individual languages and language areas, and for indicating relationships between concepts (generic and specific concepts) as well as for obsolete terms and new formations.

(3) Abbreviated editions. The arrangements which have been described above apply to the fundamental compilation of standardised terminologies. From these fundamental editions may be derived simplified editions such as for instance bilingual alphabetically arranged translating dictionaries, containing neither definitions nor illustrations.

An alphabetical translating dictionary directly compiled, without the terminology in question being already covered by a fundamental systematic vocabulary, is not, however, suitable for purposes of standardisation. Experience shows that this never leads to technically satisfactory results.

(4) Compiling procedures. The last problem involved in terminological standardisation consists in agreement as to rules of procedure for the compilation of a terminology, particularly if it is to standardise.

Here again the Technical Committee ISA 37 proposed a scheme in 1939. The Secretariat of the new Technical Committee ISO/TC 37 has once again attacked this problem and has suggested the following division of work:

(1) Delimitation of aim, e.g. delimitation of the subject field, the choice of languages, determination of the number of concepts to be covered.

(2) Collation of material, e.g. collection of relevant documentation, establishment of a conceptual hierarchy, card indexing.

(3) Exploitation of the collected material, e.g. constitution of the working file, translation of the definitions, addition of concepts.

(4) Compilation of the alphabetical index.

(5) Standardising procedure, e.g. distribution of manuscript and its discussion.

(6) Publishing procedure, e.g. mode of printing, choice of a publisher, financing.

(7) Introduction of the standard in practice.

Extract 4 "Registers"

by J. Ellis & J.N. Ure (1969)

Any one language has many varieties. Variations according to *user* are termed local, or social, varieties, or dialects. There are, however, also variations according to *use*; how we talk or write, what kind of language we use, depends not only on what we talking about but on the use we are putting language to and other circumstances of the 'immediate situation of utterance'. The study of such varieties has been developed recently using the term *registers* for them.

Development of the concept of register

Reid (1956) put forward the concept, which he termed *register*, of differing linguistic behaviour on the part of one individual; 'For the linguistic behaviour of a given individual is by no means uniform; placed in what appear to be linguistically identical conditions, he will on different occasions speak (or write) differently according to what may be roughly described as different social situations: he will use a number of distinct 'registers'.

Ure applied the concept in a specific connexion, and in a context of Firthian (see below) linguistic theory, to the theory of *translation:* '... the characteristic which I shall here call register, or the features in any given text which show it as belonging to the system of features, lexical, syntactical, phonological and others by which the hearer, without regard to the content of the text, can draw certain conclusions about the speaker. In the case of a dead language it may be impossible to identify register; it is often difficult for a non-native to recognise even in modern languages.' (This definition in fact could include also other variety-features than register, such as social variety and register-repertory, for which see below.) 'The problem here for the translator is always whether to attempt to find the corresponding register in his own language, if one exists, or whether to find a compromise that shall reflect with the maximum of preciseness that is intelligible the peculiarities of register of the source language.' (1963:136).

Hill (1958) had independently put forward an alternative terminology: *style*, *genre*, and *mode*. This is compared below with the more elaborated terminologies of register developed in the light of it.

Catford (1965), whose research students for purposes of applied linguistics collected statistics of various registers, mostly in English, distinguishes 'register' in a narrower sense from 'style' and 'medium'. (...)

Halliday, McIntosh and Strevens (1964) distinguish three kinds of register: *field of discourse*, *mode of discourse* and *style of discourse*.

We prefer, in order to accommodate all distinctions made by all the above in a unified terminology, to classify register along the four dimensions (each of which has sub-divisions depending on the language) of *field*, *mode*, *role* and *formality*. These are explained and exemplified, and compared with the above terminologies, below. But first a very brief outline should be given of what may be called the 'prehistory' of the subject (before Reid) and of work proceeding on the subject in other terms, mostly in other countries.

Linguistic (and literary) scholarship has always recognised, without exhaustively systematising, variation in the usage of linguistic items. This awareness is reflected in such terms as 'literary language','elevated language', 'colloquial language', etc., and in such treatments of individual linguistic items as the Shorter Oxford Dictionary's 'Words are also classifiable according to the sphere of their currency and usage', and its distinction of 'common', 'literary' and 'colloquial', and division of 'literary' into scientific, foreign and archaic, and of 'colloquial' into technical, slang, vulgar and dialectal.

In fact, the different application of say 'literary language' in English, and of 'Schriftsprache' in German, *literaturny yazyk* in Russian, for example (where it includes some non-literary registers of educated speakers), shows that differing institutional linguistic (see below) developments in different societies result in different variety-systems in different languages; and a general theory of language-variety must deploy a set of categories abstracted from such particular manifestations.

Moreover, the terminological extension of the metaphor found in 'elevated language' etc., to, for instance, the current French terminology of 'niveaux de langue' (e.g. Vinay & Darbelnet 1958) has helped to perpetuate a normative, prescriptive, and in any case unidimensional, conception of the subject. Even after descriptive linguistics generally had been developed scientifically the subject of language-varieties and especially register lagged behind partly because of attitudes of prejudice about linguistic usage. Pioneering American work, for example, began with languages of *other* societies, especially primitive ones (where register-distinction may be just as multiple, and in some ways more salient). For example, when Sapir wrote 'the sociologist is necessarily interested in the symbolic significance in a social sense of the linguistic differences which appear in any large community', he had *inter alia* had experience of the languages of small primitive communities and their interest to the social anthropologist. (...)

Register is a linguistic category, a property relating a given text, in terms of its formal, phonological or graphological, or substantial, features to similar texts in comparable situations, and thereby to features in the situation of utterance or composition. A given language will be said to have a register-distinction at a certain point only if there are both linguistic and situational differences there (cf. Gregory, 1967).

Thus each language has its own register-system, which may or may not cover the same range of possible situations as other languages, but which has a unique distribution of linguistic discriminations between situations. Each such system comprises relatively indelicate (general) and relatively delicate (particular) distinctions. A relatively indelicate distinction is easier to demonstrate and more accessible to less sophisticated analysis (notably without statistics); also, in general it is more likely to be alike in different languages, especially of similar culture. (...)

Registers are common to different speakers, but speakers differ in the registers they possess actively and, to a certain extent, the degree of recognition and response. Cf. Firth (1959): '... an integrated personality ... would be regarded as being in command of a constellation of restricted languages, satellite languages so to speak, governed by personality in social life and the general language of the community.' The registers of a speaker constitute his register-range or repertory; this is a situational category, and is a factor influencing the developing situation of an interchange or other instance of communication: one of its effects is to determine the registers actually used by either participant.

The classification of register

We classify register on four principal situational dimensions. In a given language, a combination of points on these dimensions, or sub-dimensions within them, will yield a given register with linguistic characteristics. The separate dimensions are abstracted from these language-specific combinations so that we see the dimensions on the theoretical plane, as generally applicable to any language or variety, down to idiolect.

(i) The *field* dimension of register is defined as the dimension of classification of registers on which linguistic variations correlate with variations in the type of subject-matter, where the difference is not merely a direct reflection of the particular reference, e.g. *'the solution was heated'* and *'I heated the solution'* may (perhaps) be distinguished as belonging respectively to 'the field of science' and 'general or everyday field', whereas *'I heated the solution'* and *'I cooled the solution'* may not.

Thus defined, *field* does *not* include those aspects of Halliday, McIntosh and Strevens' (1964) 'field of discourse' such as 'getting things done' or phatic communion, which are matters of role. Catford too conflates the latter and our 'field' in his narrow use of the term *register* itself ('performer's wider social role ... e.g. 'scientific', 'religious'. 'civil-service'), as do Vinay and Darbelnet in their 'spécialisations fonctionnelles'.

(ii) The *mode* dimension of register is defined as correlating with the medium of utterance and the general communicative relation between the participants. (...) This is a department of register which has changed rapidly in the last hundred years, with constant revolutions in the physical techniques of communication: mass-newspapers and universal literacy, telegraphy, telephony, radio, television, tape-recording. The full mode register-system of contemporary languages comprises (indelicately): printed texts, letters, tape-recordings, broadcasting, television, public speaking, telephone conversation, note-passing, spoken colloquy etc.

Halliday, McIntosh and Strevens' 'mode of discourse' includes also some distinctions, e.g. newspaper, advertising, conversation, in which role also plays a part (or as in their example of *sports* commentary, also field); Catford's 'medium' corresponds to our 'mode', though he includes the 'number' as well as the (unspecified) 'nature' 'of addressees and the performer's' (unspecified) 'relation to them' under 'style'. Vinay and Darbelnet in effect include mode in 'tonalité ésthétique'.

(iii) The *rolé* dimension of register is defined as correlating with the social or other function of the utterance or text (on 'role' of *participant* see below). Examples are: (a) the linguistic features common to informal personal interchange, whether it occurs in the kind of spoken colloquy identifiable as informal conversation on the one hand, or in an exchange of personal letters on the other; (b) those linguistic features to be found in exposition (of varying degrees of technicality, cf. below on *stratum*): and (c) those to be found (with the provisos below) in literature as such. (Genre-distinctions within literature insofar as they are linguistic, are more delicate subdivisions of role (or of mode, but this is the case only in inner situation); but they also need to be considered in the light of the special nature of the language of literature mentioned below.)

Some contemporary languages at least temporarily (cf. Halliday, McIntosh and Strevens 1964:94 on the future role of machine translation) are without the registers appropriate to certain situations already arising in the society concerned (e.g. language for education of various grades, for technical specialities (including that used in higher education), for government and administration); either the result or the cause of such a state of affairs is that the society uses another language, e.g. English and French in Africa. Unlike the differences in their ranges of mode-register, these differences between language-communities in the ranges of their role-registers are not peculiar to the modern age - as witness medieval uses of Latin in Europe, Chinese in the Far East, etc., etc. (cf. Hill 1958, e.g. on Arabic).

With role belong largely also registers that may be called *restricted registers* (Halliday, McIntosh and Strevens' 'restricted languages' in this sense is a narrowing of Firth's use of that term); these are roles which are possible only for certain fields, so that many utterances in other registers could not be 'translated' into them, and/or their formal resources are relatively impoverished, as in the case of recipes. They may also be restricted to certain modes and formality-registers, e.g. military commands, telegrams. In fact the restrictedness of registers in this sense forms a cline, nor is there anywhere such a thing as a whole register distinguished from all other registers only by variation on one of the four dimensions.

Halliday, McIntosh and Strevens treat the factors elsewhere grouped under role as *field* or *mode* (or possibly as *style*, as in an interchange between teacher and pupil- but here they *are* also speaking of the formality consequences of the educational function). (...) The linguistic features correlating with social variety are those permanent to the individual, and in particular societies such social varieties may be linked with specific social functions, e.g. Catford's 'professor of biochemistry'. This would cover the sexually correlating differences in Japanese, mentioned by Halliday, McIntosh and Strevens, insofar as these distinctions are not affected by the sex of the addressee (a subdivision of formality). Vinay and Darbelnet include role both in *tonalité ésthétique* and in *spécialisations fonctionnelles*.

(iv) Finally, the *formality* dimension of register (which is also affected, in particular ways that are partly more complex and subtle, by communicative and other developments in modern society), correlating with the personal relation between the participants (including their 'roles' in the sociological sense insofar as these interact). When no particular addressee is envisaged, formality is neutralised and we may speak of *neutral* or *impersonal* formality - which in a given language may share linguistic features with more formal registers, as in English, or with more informal registers as exemplified by Japanese verb endings (see O'Neill 1966 for a lucid exposition of formality in Japanese generally).

Degree of formality corresponds to *style* in the terminology of Hill (1958), Catford (1965) and Halliday, McIntosh and Strevens (1964). The last, it is true, use the term 'style of discourse', and they do distinguish it from 'style' in the traditional literary sense (see below), but dangers of confusion call for a distinct term. (...)

Ranges of registers

Linguistic features of registers can sometimes be seen to have language-external causes, e.g. tempo-conditioned (lento and allegro) forms like *cannot* and *can't* (see below), but otherwise they must be accepted as being in the same arbitrary type of relation to the situational features they correlate with as, in general, linguistic items are to the situational items they 'mean'. (...)

In the interrelations of the four dimensions with each other, already exemplified above, examples could be multiplied endlessly ('there may be syncretisms and incompatibilities between varieties' - Catford); e.g. *cannot*, given by Catford as an example of a marker of mode and also formality. The same may apply to the use of the passive in our own example: *The solution was heated / I heated the solution;* a longer section of text would narrow the range of possibilities in that a high frequency of passives would point to a scientific field, a lower one to 'formal'formality in personal relations. A principal case is the scale technical-non-technical, sometimes called *stratum*, e.g. learned article, book, popular writing, etc., this combines field, role and formality.

Equally important are relations with other kinds of variety. Registers may draw their linguistic material from local and social varieties, as indeed from quite separate languages. Cf. Reid (1956): 'The fundamental importance of the distinction of registers is shown by the fact that it may cut across the distinction of national or regional tongues, as when a person whose familiar conversation is carried on in Alsatian or Breton or Welsh uses French or English for administrative purposes; but it is no less significant where forms of the same national language are used in all cases.' A distinction must of course be made between cases like those mentioned above under 'role' where no one (yet) uses the native language for certain purposes, and other cases (due to national domination in the case of communities, or to more particular reasons in the case of migrated etc. bilinguals) where some individuals have registers in a second language only although others have them in the native language, e.g. Gaelic speakers who are literate only in English compared with intellectuals with a full Gaelic register-range.

This last is a case of social variety distinguished by the range or other features of its register-system (in this case by the division of range between languages). There is another kind of register differentiation of social varieties which is more fundamental, and a matter of sociological linguistics, rather than institutional linguistics, since it characterises a particular kind of society irrespective of the language involved. A case of such register-differentiation of social varieties investigated in detail by Bernstein (1965) is the distinction between 'restricted codes', which are possessed by all members of, e.g. British society (though unevenly distributed by role and field and even formality), and 'elaborated codes' which characterise the middle class rather than the working class (though, as Bernstein shows in his statistical results, the facts represent a cline rather than a dichotomy). (Bernstein's results need to be supplemented by comparative work on other societies, and as far as possible historical considerations, e.g. the historical 'Dissociation of Sensibility' could conceivably be formulated as a relative impoverishment of restricted codes, not suffered to the same extent in e.g. Russian culture.) (...)

Register in literature

Written language (and some kinds of recorded spoken language) and literary language present special problems which can only be treated briefly here. (Written: a term on the register dimension of mode; literary: a term on the register dimension of role, although both are treated as 'modes of discourse' in Halliday, McIntosh and Strevens, 1964.)

The difference between an utterance conveyed to the addressee as soon as performed at all, and a text composed for later communication, introduces a scale of premeditation and elaboration of the final text or act of speech (oral literature being a particular case, with improvised adaptation of remembered patterns). At or towards one end of this scale the role of addressee is mediated by forms of memory or intention; the conditions of impersonal formality mentioned above, where there is no specific addressee (in terms of personal relations), are a particular case of the abstraction of some degree of generality of (potential) addressees. (...)

Literature is distinguished generally by something linguistic, 'patterning of patterns', and much literature by something semantic, namely its belonging to the category of the fictional (non-literary members of this category are exemplified by anecdotes in personal interchange). (...)

The characteristic of being fiction has in general little effect on the choice of linguistic forms, though it does in languages like Bulgarian affect the usage of the 'renarrative' system of the verb (the 'direct' mood of which is in most non-fictional registers reserved for events to which the speaker can testify). Most patterning of patterns in literary language is again in the arbitrary type of relation to the cognitive semantic content, though no doubt some correlation is demonstrable with the affective aspect.

As for the further question of what distinguishes the poetic from the literary generally, we can say briefly, that in the former the affect is rather in the language selected, while in the latter it is rather in the thesis of the (just as much selected) language.

Insofar as a general characteristic of selecting in a specially patterned kind of way from the patterns of the language at large does distinguish literature as a whole from other uses of language ('the language at large'), Reid (with his 'register ... of literature (with various subdivisions)'), Vinay and Darbelnet (with their 'langue poétique', 'langue littéraire', 'langue écrite', reading downwards!), Ellis (1965) ('Role ... e.g. ... literature ...'), Halliday, McIntosh and Strevens ("'the language of literature' as a single register") and others must be allowed a 'register of literature'. But in giving substance to the concept of special patterning, it is immediately apparent that literature (or 'the register of literature') throughout makes use of 'other'registers (the registers of other uses of language), including *'residual'* features (this is so in our culture, though not necessarily in other cultures). Cf. Catford: 'a poetic genre as a super-variety characterised by potential use of features appropriated to all varieties.' (...)

Extract 5

"Plurilingualism"

by R. Darnell (1971)

(...) Linguists have often tended not to emphasise language as actually spoken. The tendency in modern nations toward standardisation of speech around political units (the English of London, the French of Paris, the Russian of Moscow, etc.) has reinforced this abstraction from the realities of spoken language. Many linguists have insisted that the grammar of a language is patterned but that the social system within which it functions is not. For example, Uriel Weinreich (1963: 3-4) has argued that a linguist must consider bilingualism in terms of 'non-structural' or 'extra-linguistic' features. His list of features makes it clear that he recognises the complexity of speech usages developed when two or more languages come into contact. He concentrates on the 'interference' by which knowledge of one language influences output in another. Variables determining the actual speech include: general verbal fluency, relative proficiency in each language, specialisation in use, manner of acquisition, attitude toward each language. Non-individual factors include size of the bilingual group, its internal homogeneity, relative prestige of the two languages, attitude toward each of the accompanying cultures, attitude toward bilingualism in general, tolerance toward incorrect speech and language mixture, and relation of the speakers to a larger speech community.

In very few cases does the published literature permit observations on most of these topics for Canadian languages which the census statistics indicate are viable in Canada today. A perspective such as the one taken here makes it clear that structural similarity of two languages is not the major factor in their mutual intelligibility, or even in the ability of their speakers to come to some *modus vivendi* in their bilingualism. It is well known that in many Canadian communities, *multi*lingualism is common. Individuals with little or no formal education can be found, for example, in Athabasca, Alberta, who speak English, French, Ukrainian, German and Cree. These individuals have lived and worked with native speakers of all these languages. Although fluency varies, it is a sign of courtesy and openness to social interaction to know a little of a man's language, even if it is not the major language of communication. Greetings are, understandably, the most common form of such linguistic facility, with various forms of joking also frequently exchanged. In this case, the languages include both charter languages (reflecting the dual historical contact situation in northern Alberta), two immigrant languages which have contributed extensively to the settlement of the area, and one American Indian language. This is the kind of bilingualism (of which multilingualism is but a special case) which is not accounted for in the simple view of Canada as an officially bilingual country with other languages spoken by minority groups in some areas. It is part of the continuous adaptation by which human communities organise themselves.

Such a view seems to require studies which take a community perspective toward language, as do most of the studies in this volume. There is, of course, the drawback that it is not always clear, even to the investigator, how generally his results may be applicable. On the other hand, the role that language plays as a symbol of cultural integrity and community identity emerge from the limited number of cases for which description has been attempted. There are regularities in that some of the conditions of language maintenance can be generalised to apply to speech communities with structurally diverse languages. For example, status as an American Indian, charter or immigrant language will itself impose certain predictable conditions on the speakers of a language. Attention to the particular histories of groups and communities in Canada is the only route to adequate understanding of the existing linguistic diversity.

Canadian linguistic diversity cannot be seen in the same light as that of the United States. The addition of French as a second official language, reflecting the much greater influence of French tradition on the forming of the nation, makes the Canadian situation unique among the nations of the world. Canadian immigration has been more recent than American and the land resources which attract immigrants have remained open longer. The result is a more heterogeneous population, in which linguistic diversity continues to flourish.

These are the sociological facts. There are also social or ideological facts. Canadians think of themselves as different from Americans. Because of this belief, they *are* different in important ways. The American concept of the 'melting pot' in which immigrants of diverse linguistic and cultural backgrounds are absorbed into a single cultural mainstream with English as its language of expression strikes many Canadians as forced or unnatural conformity. The Canadian image, rather, is that of a 'mosaic' in which each tile retains its characteristic shape and colour but is fitted into the whole. Canadian nationalism is thus conceptually built on diversity to a greater extent. In practice, of course, similarities in migration patterns and continental history have produced many similarities in demography and language maintenance. Fishman (1966: 31) in a monumental study of language maintenance in the United States pointed out that the American melting pot was not as successful as theory would have it and the amount of language preservation would be surprising to most Americans.

Canadians and Americans alike believe that their society is a potentially egalitarian one, in which ability is reflected in outward success. In reality, of course, this may be true on the individual level but is seldom so for groups. As Porter (1965) has illustrated, Canada forms a 'vertical mosaic' in which class interacts with ethnic background to produce the structure of the national society. It cannot be denied that occupation, for example, is closely tied to ethnic origin and acquisition of a charter language, usually English except in Quebec, will not necessarily alter the fortunes of the group. A Frenchman even in Quebec does not earn as much as an Englishman, although he earns more if he is a Frenchman who also speaks English. Part of the healthy result of Porter's study and the Royal Commission Reports on Bilingualism and Biculturalism has been increased awareness by Canadians of the insidious pressures to which some of their citizens are constantly subjected. The Commission's official mandate states as its goal (I:xxii):

> "... develop the Canadian Confederation on the basis of an equal partnership between the two founding races, taking into account the contribution made by the other ethnic groups to the cultural enrichment of Canada."

The Commission recognised the value to any group of people of the right to self-expression in their native language and considered the number of bilinguals less important than their position in everyday life and the opportunities available to them (I:xxviii) as Canadian citizens.

The lesson remains, even when other linguistic and cultural groups than the English and the French are discussed. The Commission wisely refrained from attempting to legislate against personal prejudice, simply trying to set up reasonable criteria for language maintenance and reasonable expectations for speakers of minority languages within the larger society. One of the major results of the initial Royal Commission inquiries was extension of the scope of the original mandate to deal with the 'other' languages of Canada. Examination of the position of the charter languages had led to an incomplete picture: Canadians were simply not prepared to separate the question of official languages from that of languages more generally. Particularly outside Quebec, questions about the relative positions and reoles of the charter languages led inevitably to queries or pleas regarding Ukrainian, German and even American Indian languages.

The Commission failed at any time to consider the linguistic problems of the native people as within their scope. Discussion elsewhere in this volume should make it clear that the linguistic problems of Canada's only original citizens must be considered as part of the question of national linguistic diversity. Previously, the American Indian and Eskimo peoples of Canada have been virtually ignored in discussions of Canadian linguistic diversity. It is seldom realised that native people have frequently turned to language as a way of maintaining their cultural distinctiveness and setting themselves off from a society which has until quite recently deliberately excluded them. Most existing treatments are grossly inadequate. American Indian languages have a long history (in terms of the time depth historical linguistics attributes to language families). They are, with adaptations, fully adaptable to the complexities of a modern technological society. These adaptations are not different in kind from the ones required to teach a farmer or hunter speaking any language to extend his conceptual world. Above all, statistics have failed to reflect the diversity of native languages spoken in Canada. Of the six major linguistic stocks postulated for North America, speakers of four can be found in larger numbers in Canada (Algonquian, Athabascan, Eskimo, and Iroquoian). These languages are far more different from one another than French and English, English and Ukrainian, or even Ukrainian and Icelandic. The American Indians have been lumped together linguistically only because of the common historical forces to which they been subjected by a larger society.

Much of the difficulty of Canadian linguistic diversity has focussed around questions of education and language of instruction. The Royal Commission accepted the principle that parents should have the right to educate their children in whichever official language they prefer "wherever the minority is numerous enough to be viable as a group" (I:86). This is, of course, a rather nebulous standard, whose application cannot always be counted upon, whatever the intention of its advocates. Speakers of minority languages other than French have, of course, responded by demanding the same rights for their own languages, often with little success. Local and regional recognition of languages other than the charter ones, even in the public school system, was recognised by the Royal Commission (II:137) although no specific recommendations for implementation were attempted. The whole problem of the Canadian linguistic situation has been brought to a head by the French Canadian 'problem' - in its major aspects a political one. The French speakers concentrated in Quebec have recently become extremely vocal in claiming the linguistic rights laid down for them in the British North America Act, by which the Dominion of Canada was incorporated. Their rights are those of a charter group and they are not willing to merge their claims with those of other non-English speaking Canadians. The Canadian French feel that they understand the linguistic problems of Canada and are impatient with the gradual awakening of understanding of her great diversity - both cultural and linguistic - on the part of English-speaking Canadians who have long taken their majority status for granted. The situation has been an explosive one, one response to which has been the extensive studies of the Royal Commission on Bilingualism and Biculturalism. Whether or not the results of the study are sufficiently practical or timely to ease the tensions, the linguistic situation has come out into the open.

The first volume of the Royal Commission Report included a separate statement by one of the Commission's members on the regional languages of Canada, asking for attention to their rights. Eskimo-Indian languages in the Northwest Territories and prairies, German and Ukrainian in the prairies, and Italian in Toronto and Montreal were cited as examples (I:158), and four criteria suggested to identify languages deserving of special treatment:

(1) contiguous area;
(2) functional use over time:
(3) oral and written traditions *in Canada;*
(4) still used for multiple functions.

In different parts of Canada, many languages meet these criteria. In many parts of Canada, French does not meet them, French communities outside Quebec have neither the numerical strength, particularly relative to immigrant languages common in the same areas, not the contact with their fellow French-speakers to make common cause. Particularly with regard to language of education, the problem cannot be easily solved.

Part II LANGUAGE VARIETY IN DESCRIPTIVE LINGUISTICS

Editors' introduction II

Grammar v. vocabulary

Once we have recognised the enormous diversity that exists in language when put to different uses, we must determine what linguistic features characterise each different variety. As we saw in *Part I* above, linguistic scholars of the Prague School made use of the notion of 'functional' differentiation; Bloomfield and other linguists recognised some differences in terms of syntax and lexicon between formal scientific and informal non-scientific prose; dictionary-makers have always been aware to some extent of the separation between 'general' words and specialised 'technical' vocabulary; experts in dialectology and stylistics have related 'deviant' features to background and/or intention of the speaker/writer.

In those studies where variation has been recognised, the relationships between linguistic and non-linguistic features on the one hand and between grammar and vocabulary on the other have not always been clarified. Until quite recently, most of the descriptive studies of a particular sub-language have concentrated on lexis.

The reasons for this concentration on lexical studies are not difficult to find. Lexical differences are the most obvious distinguishing features of many language variants and, perhaps more important, the most amenable to study by automated means. Indeed, as we noted earlier, some linguists have been led to the conclusion that a special language is in fact nothing more than a special vocabulary. It has been pointed out, however, that although we do not expect entirely new syntactic features to appear in particular registers, we may well find variations in the statistical distribution of such features. The predominantly statistical nature of these differences makes even more cogent our argument for a quantitative approach to register study. It is heartening to be able to report that the neglect of syntax in register studies is now showing signs of being remedied (e.g. Butler 1975). The five extracts in this part of our Reader underline the growing awareness that for a full account of a particular style, dialect or register in any one language the linguist must take down the artificial barriers between grammar and vocabulary that previous generations have built up.

Descriptive lexicology and dictionary-making

Authors of general-language dictionaries have always been aware of variations in usage, and they have often recorded deviations from the common standard literary norm in terms of 'levels of speech'. Kenyon (1948) did much to clarify such matters by his treatment of cultural levels and functional varieties in English, which has had a profound influence on lexicographical practice, e.g. with regard to the characterisation and labelling of dimensions like standard/sub-standard and formal/familiar.

The popular *Dictionary of American Slang* (Flexner & Wentworth 1960) defines slang as "the body of words and expressions frequently used by or intelligible to a rather large portion of the general American public, but not accepted as good, formal usage by the majority" and thus distinguishes it from such related variety concepts as 'standard usage', 'colloquialisms', 'dialects', 'cant', 'jargon' and 'argot'. The various 'sub-groups' contributing to slang are identified (underworld, army, college students, etc.) and some enlightened remarks are made about standards of correctness, spoken English, social and linguistic change and the relativity of usage labels (cf. also Partridge 1937/1961/1970).

Although the provenance of individual words and constructions is frequently marked in lexicographical compilations, these cannot be said to constitute systematic studies of the lexical inventory of particular subject fields.

Extract 6 is an example of the description of 'lexical expansion' as caused by technical innovation. It brings together into a single contribution two reviews by R.A. Hall (1955, 1971) of two books on railway terminology as it developed in France (Wexler 1955) and Italy (Peter 1969). The creation of terms, either from the native lexical stock or by various forms of borrowing the the context of the fascinating history of the train and its impact on subsequent generations, makes interesting reading. Although the compilation of linguistic evidence must have involved the authors in years of painstaking labour, such large-scale empirical investigations, rare though they may be, are surely essential if we want to progress in our understanding of language as a conceptual instrument. Examples of work which has extended these studies of transport terms to the present day are Guilbert (1967), Stubelius (1958, 1960) and Putschke (1970).

Word-based approaches to terminology lend themselves well to mechanical processing techniques, under the heading of 'computational linguistics' (Kučera & Francis 1967, Wisbey 1971). In order to study the statistical properties of linguistic elements, however, for example by frequency counts, one must be certain of how these elements are to be defined (Herdan 1964).

One of the most interesting ideas emerging from lexical work is that of a utility stratification of technical vocabulary (Phal 1968). According to some work done on French, three levels of vocabulary can be recognised, differing in their specificity of usage. At one extreme end lie those words which are indispensable for all registers of the language; at the other extreme are the highly technical terms of specific, but restricted usage. The third category, and in many ways the most interesting, is what the CREDIF team have called the *vocabulaire général d'orientation scientifique*, consisting of words which are common to all scientific and technical sub-registers, but serve to distinguish these from other registers. See *Part III* below.

Extract 7 is an example of one of the first quantitative descriptions ever attempted of the narrowly restricted 'sub-language' used for interchanges between airport and aeroplane personnel. The article by W.H. Sumby (1960) relates statistical measures of the observed messages to 'content elements' expressed in them and finds that situational constrains are paramount, with interesting implications for communicative redundancy in real language.

Partly independent of most of the above-mentioned developments we have witnessed the gradual growth of specialised dictionaries, sponsored by many different agencies from the individual compiler to the professional society, and resulting in many different types of word-lists from the simple glossary to the multilingual encyclopedia (cf. Zaunmüller 1958, Quemada 1972). Dictionary-making is a time-honoured activity with its own established attitudes and methodologies, and not always aware of all the linguistic implications (Sledd & Ebbitt 1962, Zgusta 1972). The first and most far-reaching opportunity for a confrontation of different strands of lexicography with the theories and findings of linguistics was the *Conference on Lexicography* held at Indiana University in the early 'sixties.

Extract 8 is taken from the proceedings of that conference. Its authors, M.F. Burrill and E. Bonsack (1962) discuss some of the problems they faced in their work of compiling a specialised glossary of standardised geographical names. The problem of using generic words for naming places is considerable, although these words may refer to relatively unique things, persons and events, and are clearly identifiable and amenable to official agreement and public acceptance. The question remains whether these principles also apply to the treatment of the technical words used in restricted human activities such as fishing, music and computers. Several word-lists such as the book edited by Pei (1966) seem to make such a claim: each 'language of the specialist' is said to be made up primarily of lexical items, either by assigning specialised senses to familiar words or by coining new words from native or borrowed elements.

Social dialects

A very different approach to language variety is exhibited by sociolinguistic enquiries. In *Part I* we noted that the concern of traditional dialect geography was with rural folk speech. As many regional dialect surveys concentrated on a dying segment of the population, however, their validity for and representativeness of the whole speech community must be in doubt.

More recently the emphasis has shifted to social dialectology and the correlation of certain phonological ('accent'), morphological-syntactic and lexical features with a wide range of sociological factors. It is through such empirical descriptions that we may hope to learn (a) how social variability is manifested in linguistic variety, and (b) whether remedial education can help reduce socio-economic ills among the members of one particular group (Bernstein 1971). The emergence of sociolinguistics as a borderline discipline using the methods of the linguistic as well as the social sciences is a promising development, although we must not be misled into believing that ideology and theory are a substitute for laborious detailed studies of specific communicative events (cf. Pedersen 1964, Labov 1966, Le Page 1972, Kloss 1974).

Extract 9 highlights the sociolinguistic problems of investigating urban speech. In the final chapter of his book on 'area linguistics', H. Kurath (1972) surveys some recent descriptive work - chiefly phonological - on middle- and lower-class dialects in such metropolitan centres as New York, Chicago, Vienna and Paris. Kurath concludes that progress in social dialectology will depend on what kind of sociological investigation has been carried out beforehand and on whether relevant findings from cognate research fields such as bilingualism can be incorporated.

Stylistic analysis

The way in which we choose to describe a certain language variety will vary according to the purpose for which the description is undertaken. It is possible, and may indeed be valuable, merely to describe the lexis and grammar of a suitably large and representative corpus of utterances from the register under investigation. It has been argued, however, that such studies are even more valuable when linguistic features are discussed with reference to function.

We have already met the Prague School approach to functional styles in *Part I* above. Havránek's discussion of functional varieties (1932) has formed the basis for recent work on the description of scientific and technical registers in which the relationships between linguistic form and the main functions of scientific style (accuracy and completeness of expression, combined with maximum economy) are explored.

Descriptive analyses have begun to appear for various functional styles in the major languages (cf. Leech 1966, Huddleston et al. 1968, Phal 1968, Wagner 1970, Beneš 1972), but they have indirectly helped to stimulate linguistic interest in the phenomenon of style in general. Crystal & Davy (1969), e.g., insist that the label 'the English language' is only a shorthand way of referring to "a complex of many different 'varieties' of language in use in all kinds of situation in many parts of the world", an observation which has far-reaching implications for the analysis of literary texts.

Despite reluctance on the part of some literary critics to accept as valuable the insights offered by linguistics, and despite the mistrust shown by some linguists towards the 'soft' methods of traditional criticism, there are those who have stressed the essential complementarity of the two approaches (cf. Sebeok 1960, Levin 1962, Leech 1969, Riffaterre 1971, Chatman 1971, Koch 1972, Sowinski 1973, Guiraud 1974).

Extract 10, written specially for this Reader by Walter Nash, suggests that common ground for critic and linguist may be found in the structural organisation of a literary text. This organisation is seen as consisting of an outer 'frame' and an inner progression of episodes, or 'informative pattern', superimposed on the frame. The approach is illustrated by detailed reference to a short poem, but could well be applied, with minor modifications, to a larger literary design.

Extract 6 "Early French and Italian Railway Terminologies"

by R.A. Hall (1955/1971/1972)

Lexical expansion

That vocabularies expand, especially in response to technological change, has of course long been known; but the mechanism of lexical expansion has been analysed in detail only in recent decades. Of especial interest in this connection are those parts of the vocabulary that reflect new fields of human activity, which have arisen in relatively recent times. In such fields, attestations - particularly for the period of the Industrial Revolution - are plentiful, but not so numerous as to require special techniques (sampling or computerisation), as do mid-twentieth-century materials. Vigorous work and careful organisation can, in such fields, still result in excellent monographs, which complete and extend the necessarily rather sketchy indications often given in histories or etymological dictionaries of standard languages.

One such field is the terminology of railways. We are fortunate in possessing three discussions, two of French railway terminology in the late eighteenth and early nineteenth centures (Swann 1918, Chapter I; Wexler 1955) and one of Italian (Peter 1969). Of the three, Swann's is the earliest but also the least useful, due to its brevity and incomplete coverage (limited to the nineteenth centure, and drawn primarily from literary and other non-technical sources). Both Wexler and Peter give extensive attestations of terms, with quotations of the contexts in which they occur, drawn chiefly from technical treatises and reports, with ample background discussion. As a result, both have brought to light masses of lexical items and quoations which were previously unavailable to lexicographers.

From Wexler's and Peter's studies there emerges a picture of early French and Italian railway terminologies which differs in many respects from that which has prevailed to date, with respect to chronology, currents of lexical borrowing, and relations between technical usage and literary, especially puristic attitudes. In general, histories of railways and their terminologies take up the story in the 1830's, when steam railways became known outside of the British Isles. Steam railways - the modifier is important here. Until recent decades, it was usually thought that steam railways represented the first important application of the principle of rail transport on the continent of Europe. Since the 1930's, however, it has been realised that railways existed long before the development of steam-traction: in German and Flemish mines since the Middle Ages, and even in England since the early 17th century (cf. Lee 1943:11-19). In France, the first pre-steam railways may perhaps date as far back as the 16th century, introduced from Germany or Flanders at Saint-Dié in the Vosges; but the first installation of any importance was in 1780 at Indret (Loire valley), in a foundry modelled on the English establishments of the time. But this 18th-century development of railways, accompanied by its own terminology, was interrupted by the Revolution and almost wholly forgotten thereafter, so that in the 1830's, the second coming of the railway to France seemed something new and called forth another, quite different set of terms.

'Native' and 'borrowed' terms

In the creation of a new terminology, as is rightly emphasised by Wexler (1955:126-132), a-priori considerations are not relevant, and "Le choix, pour désigner une chose ou une activité nouvelle, d'un mot désignant déjà une autre chose, une autre activité, ne se détermine pas à partir d'une contiguité ou ressemblance abstraite, mais à partir d'un lien social" (127), especially in the relations between different industrial activities. In this instance, French railway terminology came from the vocabularies of road-transport, canals, wood- and construction-industries, and the metallurgical industry. At the outset, there was strong competition between various synonyms, leading to the eventual victory of the one or the other. Thus, ornière 'rut', bande 'band' and barre 'bar' were replaced by the English borrowing rail. What seems to us the usual term, locomotive, was at first in competition with machine à vapeur 'steam-engine', machine ambulante 'moving engine', cheval de fer (à vapeur) 'iron (steam) horse', moteur mobile 'moving motor' and locomoteur. Polysynonymy thus emerges as an important feature of the early stage of a technical vocabulary. We might be inclined to think this perhaps less characteristic of modern times, when scientists and technicians prepare names for their innovations before presenting them to the public as a *fait accompli;* but the public (including repair-men) often supplies synonyms for many phenomena which have already been provided with thoroughly descriptive technical names (e.g. tweeter 'high-frequency loud-speaker' and woofer 'low-frequency loud-speaker').

In nineteenth-century French railway history, England and its early technical advances play the major rôle. It is therefore not surprising to find that a large proportion of French railway terms (such as rail, tender, ballast, wag[g]on, bog[g]ie, etc.) were borrowed from English. Loan-translations, on the other hand, were in general not successful, and the vogue for new-formations using Graeco-Latin elements (e.g.

pyroscaphe 'steam-boat') did not extend to railway terminology. In Italy, the picture was somewhat more complex, because, as Peter points out (1969:5-6), more extensive loans were made into Italian, in part due to the presence of Frenchmen, Englishmen, and Austrians as construction-engineers on newly built lines. Peter has been able to cast new light on the origin of certain terms, reversing previously held opinions. The most important of his discoveries is that, historically speaking, *ferrovia* 'railway' was not, as purists have thought, a loan-translation of German *Eisenbahn* 'iron-road', and hence to be condemned as a foreignism. He shows (44-46, 203-204) that, from the historical point of view, the adjective *ferroviario* 'pertaining to railways' (1839) antedates *ferrovia* (1852) by well over a decade; that *ferroviario* was first used as an equivalent of English *railway* in attributive function (*treno ferroviario* = *railway train*); and that *ferrovia* was a back-formation, made in Italian, on *ferroviario*. Despite puristic opposition, both the noun and the adjective have become the normal modern terms, and the latter, especially, has been imitated in other languages (Fr. *ferroviaire*, Sp. *ferroviario*).

Not only polysynonymy, but polysemy as well, is found in early Italian railway terms. Peter is thus forced (1969, Chapter 2) to treat together the terms for 'rail' and 'track', because such terms as *rotaia* were used in both meanings at the outset. Eventually, *rotaia* was restricted to its present meaning of 'rail', and *binario* became general for 'track'. The English loan-word *rail* was popular for a time (Peter 1969: 74-81); it was sometimes Italianised as *raile/-o*, pl. *raili*, but was ousted by *rotaia* from the 1850's onward. There are some attestations of *raglio* (< Fr. *rail*/raj/ or/raʎ/), on the model of *dettaglio* 'detail' = Fr. *détail*, etc.); but this term aroused condemnation and mockery because of its homonymy with pre-existing *raglio* '(donkey's) bray', and did not survive. On the other hand, its derivatives *deragliare* 'to derail' and *deragliamento* 'derailment' were not so closely associated with *raglio*, and hence have survived.

Puristic meddling in language-matters is not only a nuisance, but on occasion does actual harm (cf. most recently Devoto 1970). This is evident in the history of the Italian terms for 'tender' (Peter 1969:130-143, 204). There was a perfectly good expression for the car which carried coal and water for the locomotive, *vagone di scorta* or simply *scorta* 'accompanying car', which by the late nineteenth century had become widely used by railway-men. In their campaigns against the English loan *tender*, purists suggested such confusing terms as *carro depòsito* 'deposit-car', *furgone* 'van', *magazzino* 'store-house', *serbatoio* 'reservoir', *dispensa* 'dispensary', *carboniere* 'coal-car' or *provveditore* 'provider', all of which were useless because they were already functioning in other senses. But the purists did not know *scorta* - their experience was limited to their desks or their classrooms, and they had little or no contact with the living usage of men who actually worked on the railways - and hence they failed to mention or recommend it. Hence *tender*, not only despite but actually because of puristic opposition, won out in standard Italian because it was the only completely unambiguous term available to the general public.

We are greatly indebted to scholars like Wexler and Peter for such thorough studies. It would be highly desirable for them or others to bring these investigations down to modern times, in which new developments and fluctuations in usage are still going on, though not in so complicated a fashion as when the technological fields were new. Old terms (e.g. those connected with steam-traction) are dying out, and new ones (e.g. those related to electric and diesel locomotives) are taking their place. It would further be useful to have more detailed information on the terminology of railways (and other fields, such as airborne vehicles, telephones, etc.) in times when nationalistic movements exerted strong though not necessarily lasting, influence (e.g. in Fascist Italy or Nazi Germany). I remember being exposed in those days to such folkloristic bits of information as that *ferrovia* was an ugly Germanism, and that *locomotore* (m.) was to be preferred to *locomotiva* (f.) because the latter was an effeminate Gallicism. What were the official pronouncements on such points, and how far did every-day usage really follow them? What were the factors that made, for instance, *littorina* 'rail-car operated by an internal combustion engine' survive after the Fascist period, whereas other terms in *littor-* (< Lat. *lictor*) did not? Only detailed research into both printed and manuscript sources (e.g. personal letters, memoirs, and the like) can tell us. Work of this type, solidly grounded on the actual facts of language, is likely to survive more pretentious and fashionable but vacuous theoretical fugues.

Extract 7

"Control Tower Language"

by W.H. Sumby (1960)

The control tower language is an excellent example of a specialised sub-language. Such language is used in that area where the most critical phases of flight are accomplished, landings and take-offs. Such manoeuvres are land-monitored and directed vocally by the control tower system. Because of the importance of control tower operations to the success of the Air Force Mission, the Operational Applications Laboratory was requested to examine the effectiveness and structure of the control tower language. A summary paper has been previously presented (Frick & Sumby, 1952). The present article summarises the methodology followed in the analysis of this specialised language-in-action.

The principal decisions that had to be made concerned the appropriateness of the levels of analysis to be employed. Primary consideration is given to the method whereby the constraint imposed by the physical situation was estimated.

Word Count

An exploratory and rather easily obtained estimation of the representativeness of a specialised language, relative to its parent language, may be determined by a comparison of word-count samples. A sample of 5,179 words obtained from transcribed control tower messages and a sample of equal size obtained from the editorial pages of newspapers were the materials compared. The word-counts are described in Fig. 1 in terms of the familiar Zipf (1949) analysis: log frequency vs. log rank. The newspaper count, summarised by the thin line, closely parallels the slope of minus one obtained by other investigators (Condon, 1928; Zipf, 1935) studying a more general language. The deviation from this slope by the control tower materials, on the other hand, indicates that a large number of words, relative to the total number of different words, is frequently used, whereas relatively few words are used infrequently.

It is noteworthy that the frequency of numerals constitutes approximately 50 per cent of all words used in the control tower language. Such words were omitted from the word count and are not reflected in the curve. Since numerals here are, for the most part, used as simple identifications and as such are extremely redundant, it seemed more realistic to omit them from the comparison. Their inclusion would have, of course, exaggerated the difference which occurs. (...)

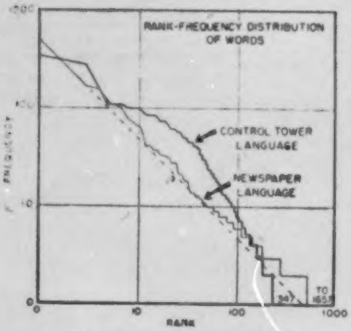


FIG. 1. The frequency of occurrence of the different words in the control tower transmissions and in newspaper text as a function of the rank of the words.

Situational constraints

(...) In order to examine a more molar aspect of the stream of language sequences it is necessary to employ a more appropriate unit for analysis. The content element (Frick & Sumby, 1952, Fritz & Grier, 1954) provided such a unit. The content element is a series of words which refers to a given action or thing. A single content element can be specified in a number of ways, e.g. *gear down and locked*, *gear in the green*, *gear checked* all refer to the same action or event. The content elements employed in this study are presented in Table 1. A message would be encoded as follows in terms of Table 1. The message, *"Air Force 1234, Bolling Tower, Clear to enter traffic, runway 10, check base"*, would be A,B,C,D,G.

Fifteen control tower situations were described to 110 Air Force pilots. In addition, an appropriate air-to-ground message from the pilot to the control tower operator was included. The subjects were instructed to study each situation and the air-to-ground message, and to predict the control tower operator's ground-to-air response for each. An example of a situation with the appropriate air-to-ground message and tower response follows:

Situation - Visibility and ceiling unlimited. No aircraft aloft in immediate control area.

Message - Bolling Tower, this is Air Force 1234, eight miles south of your station, landing instructions.

A typical response - 1234, enter traffic, runway 10, check downwind.

The most striking finding of the tabulation of the content elements is that a population of only 14 different elements was necessary to describe every predicted message for the entire 15 situations. Furthermore, no content element was employed more than once in any particular message. Finally, no message was more than 7 content elements in length. The actual distribution of message lengths, in terms of content elements, is given in Table 2.

Table 1

Content Element Code

A - Aircraft Identification
B - Tower Identification
C - Clearance
D - Runway
E - Altimeter
F - Winds
G - Check Points
H - Position
I - Check Equipment
J - Traffic
K - Caution
L - Direction
M - Reception Confirmation
N - Maintain Position

Table 1. The coding of the content elements occuring in the control tower messages.

Table 2

Content Elements Per Message
(pooled over 15 situations)

Length	Number
1	33
2	297
3	594
4	346
5	198
6	132
7	50
Total	1650

Table 2. The number of messages analysed when arranged according to the length of the message in terms of content units.

First, second and third order informational analyses of the sequential structuring of the content elements were performed. Such analyses supplied estimates of the uncertainty for each position in the message, for each successive pair and each successive triad of positions for each situation. (...)

(...) In addition to the constraint imposed upon the selection of content elements by the situation at hand, we find additional constraint imposed by the use of a content element upon the selection of the succeeding elements. However, there is an increase in the relative constraint of only 8% when the item of analysis is the trigram unit and compared with the single unit. At the third order of analysis, then, the average constraint imposed by the situation on the selection of content elements is approximately 82%.

It is interesting to note that when all of the content element responses were pooled over situations, the average constraint imposed upon the selection of elements for each position is approximately 60% for single elements and 70% for triads of elements. This indicates that when a particular content unit is used in a message, the probability of other specific units following it is high, regardless of the situation.

Discussion

Control tower language is almost completely unintelligible to the neophyte, a condition apparently attributable, at first glance, to the wide-band masking noise present. However, after extensive experience with the *overall* system the elements of a message can be easily specified. It appears, therefore, that knowledge of the typical situational procedures is the most constraining factor of this sub-language.

The pilot's knowledge of the situation and the procedures followed in the situation reduce the gross uncertainty of the message approximately 82%. Since the messages are also subject to the linguistic constraints, previously estimated, the residual uncertainty of 18%, in terms of letter sequences, is further reduced by 72%, or 13% of the total uncertainty. The estimated average relative redundancy is 95% with respect to what could have been transmitted. This procedure, of course, assumes the independence of the linguistic and situational constraints. If such an assumption is questionable, a more conservative estimate may be obtained by assuming the newspaper approximation of redundancy to be a more realistic measure of actual linguistic constraint. In this case the residual uncertainty is reduced by 56% or 10% of the total uncertainty, yeilding an approximation of 92% relative redundancy.

The primary objective of this paper has been to demonstrate a methodology whereby the situational constraints imposed upon a language might be quantifiably estimated. The series of analyses has revealed that the control tower sub-language is not a representative sample of the parent language, and also has quantified two sources of constraint operating upon the language at a particular time; linguistic and situational. It is somewhat startling to discover that so little information is transmitted by the verbal message *per se*.

The high degree of linguistic constraint is evidence that the same messages frequently recur, which in turn is evidence of a highly routine system. Because of such evidence and because the content elements were found to be highly predictable, it appears that the situation serves to delimit severly the elements that can occur. The limitations are restricting to the extent that the receiver expectancy of message occurrence is almost certainty. The verbal message, then, serves, for the most part, only to confirm or refute the expectancy of the receiver.

Obviously the constraint imposed by the situation on this sub-language is much greater than one would expect to find in the parent language or even other sub-languages. The results do suggest the possibility, however, that the estimates of redundancy reported by other investigators for the general language would have been higher if this source had been considered. Unfortunately, the more general language might not be readily amenable to the specific situational analysis outlined here in that in most cases content elements cannot be specified easily. However, it would seem that the predicted responses to a given verbal sequence in a particular situation would be, at least, correlated and probably lend themselves to element categorisation.

Extract 8 "Toponymy and Lexicography"

by M.F. Burrill & E. Bonsack Jr. (1962)

Preparing geographical glossaries

The purpose of this paper is to raise some questions, to suggest some possible answers, to open some lines of inquiry and to describe some resources, procedures and observations, all stemming from practical experience with or related to glossaries in a specialised activity - geographic name standardisation.

In the performance of staff work leading to the standardisation of geographic names, the Office of Geography both uses and produces specialised glossaries. The standardised names are published by the Board on Geographic Names in gazetteers produced from punched cards at the rate of a quarter to a third of a million names per year, covering all foreign areas of the world. About fifty are now available in inexpensive editions for sale by the Government Printing Office. This activity has offered an opportunity to view in some detail lexical problems presented by a large volume of toponyms in all kinds of areas, and to observe some phenomena of toponymy and geographic terminology that are very widespread.

Since the number of names and named entities is too large to be observed by any one person, we have begun experimenting with procedures for developing and testing generalisations (about names or terms and the entities to which they apply) from the individual observations of 40 staff members. Experience so far suggests that the experiment will have useful results. It appears that some patterns of thought and terminology approach universality, which suggests that we are dealing with general principles. We find this a stimulating thought.

The gazetteers list the standardised names and variant names of the geographic entities in the country under consideration, in alphabetical order of the specific element. Each name is followed by a coded four-letter designation word characterising the entity, the geographic co-ordinates, a number identifying the overlying administrative division, and a coded reference to a map that shows it. A foreword carries an alphabetical list of the code words and the designations so coded, and a glossary of foreign generic terms found in the names that are listed. (...)

Curiosity about some unusual terms encountered in names led by a series of steps some years ago to a full-scale study of the occurrence, connotation and distribution of all the generic terms used in all the geographic names on all of the topographic maps and nautical charts of the United States. The findings were astounding and started off a whole series of other inquiries and attempts to frame new generalisations.

Early in the course of that study it was discovered that the words *hope* and *folly*, encountered in some names, have a topographic meaning and are used as generics in England. *Hope* is used as a common noun, *folly* is not, in this connection. This led to suspicion about other words and frequent recourse to dictionaries and glossaries, with such interesting results that all the terms encountered were checked in about a hundred monolingual and bilingual dictionaries, glossaries and word lists. All pertinent definitions found were compiled for each term, along with a record that a given source included the word but no pertinent definition. A sample compilation is appended. In addition to its usefulness as an office tool, this has given us some better understanding of the sources and work of the lexicographers.

These studies have opened a number of doors. Each new concept has posed a number of fundamental questions that still await satisfactory answers, but at the same time has modified the intellectual climate. We can now entertain some ideas that earlier we would have rejected, and can focus on the problems some facts the relevance of which we would previously not have admitted.

The step in the process of geographic name standardisation in which the glossaries are most used is the identification of the kind of entity to which the name applies and [illegible] selection of the 'designation' to convey that identification. Since the geographers who prepare the name cards are not required to know the language of the areas on which they work, it is necessary to provide lexical aids. As one such aid the linguists have recently begun to compile preliminary glossaries defining the various generic terms found in an inspection of the names that are to be standardised, or in glossaries of map terms. Such lists are not foolproof, as will readily be seen from what follows, but they do contain a large part of the words that will be encountered and they are easy to use, and as the work progresses the gaps in the lexical information are filled in.

The final glossaries in the gazetteer forewords include the non-English generic terms encountered in the geographic names listed, with their dictionary definitions and other definitions derived from the name sources consulted. This is a fairly simple process for most terms, but there always remains a residue of words of questionable validity as generic terms, as indicators of the nature of the features in the names in which they play a part. The linguists scrutinise these closely to see whether they should be included in the final glossaries. (...)

Concepts and meanings

The staff discussions of coding questions, involving more people at the same time and all the designations in a gazetteer, have helped to focus and test some developing ideas, particularly about the geographic entities that people do or do not distinguish and the relation of this to terminology.

It is well known that different generics are commonly used for similar, even adjacent, entities. A new idea is that in some cases the generic refers to a complex entity that we have not consciously distinguished and named as such, and having elements or attributes usually referred to by distinctive terms. Reference to it has perforce been in terms of one or another of its elements that we do consciously recognise and for which we do have a term.

Many of the swamps along the middle Atlantic seaboard offer good examples that contributed to formulation of the concept of the 'topocomplex', as we have called this combination of geographic and linguistic phenomena. The swamps referred to combine the following elements: low-gradient stream flowing sluggishly in a shallow, narrow valley with a flood plain normally flooded shallowly and supporting an association of hygrophilous vegetation including trees and a tangle of lesser plants. The generic in the names of such complexes is not always *swamp*; it may be *branch*, *creek* or some other term. The important point is that the name refers to the complex, not merely to the single element usually connoted by the generic.

A logical next question was, Do other sorts of entities having geographic names provide examples of such complexes? They do, and in a variety that challenges the ingenuity of the would-be categoriser. A *rambla* in Spain is a complex of a bare gravel stream bed and, seasonally, swiftly flowing water. The bed, at the bottom of a V-shaped valley, has a moderate gradient and a flat transverse profile. Most watercourses are topocomplexes. The names of land masses projecting either upward (mountains) or outward (points) commonly refer both to the whole mass and to the extremity. A *ranch* is a complex, a functional entity including land, structures, people and the things being produced. The ranch name may, in different context, refer to the whole complex or to a single element. The word *Alpe* is found on German maps in names so placed that they have been interpreted as applying either to the structures or to the mountain grassland pastures that are associated. It is now thought that the name usually applies to both, as a topo-complex.

Selecting a designation looks easy but in practice has often presented difficulties. Staff members have frequently differed as to the proper one to select. If, as often happens, there is some logical basis for each alternative and no way to establish positively the concept that the name itself was intended to convey, subjective administrative decision has resolved the questions. The fact that for years such questions came up and required prompt answers one by one or in small groups made it difficult to draw any general conclusions. It is still difficult, but we have made some progress.

Part of the progress has come from attention to our own mental processes as a basis for hypotheses. In our staff discussions of glossary words, terms and designations it has repeatedly come out that the members of the staff not only have different ideas about the meaning of a given geographic term, but also experience difficulty in conveying to one another what they think the meaning is, partly because there is no more agreement on words used in the attempted definition than on the word being defined. Sometimes colleagues have rejected each other's suggestions without being able to say why. Rejection has sometimes been accompanied by a feeling of irritation, sometimes not. It is interesting to compare the fact that a given individual may be irritated by some mispronunciations but not by others, and cannot explain why.

One of the results of the U.S. generics study was the recognition, in ourselves and others, of mental set with reference to meanings of terms, more or less comparable to the mental set reflected in reluctance to attempt foreign language speech sounds. As in the case of sounds, recognition of the mental set has reduced its restricting influence. It has also alerted us to look for it and for its significance in other aspects of our own thinking, as well as in the material that comes under our scrutiny.

Although the anthropologists had made us aware that each culture group analyses nature and experience in its own way, we were not at first prepared to accept the fact that individuals also differ significantly in this respect, even within our own culture groups, even within our own office. We knew, of course, that different words are used regionally for geographic entities considered essentially similar, e.g., *run* and *branch* for minor tributaries, but we did not anticipate that the U.S. generics study would show that practically all the terms for wetland are also used as generics in the names of standing water bodies, or that half or more of the U.S. generics would be new to all of the staff. Nor, until we began to ask the right questions, did we discover that several of us had used relatively common geographic terms in communication as colleagues for more than a decade without realising how often the words did not evoke the same image for all. Sometimes the differences were in the primary meaning of the term, sometimes in the periphery of its applicability. (...)

The problem of generic terms

Since individuals are not familiar with all the generics, or with the generic connotation of terms also used for other things, and since there are no accepted rules to determine when the metaphorical use of a term like *arm* or *sugarloaf* has actually become generic, there is room for differences of opinion. Among the names encountered in an gazetteer file there are always some containing elements that may or may not be properly considered as generics. Decision on this point will govern whether they are included in the glossary and whether they will be transposed in the listing. Let us examine some of the problem types.

(1) Vestiges of elements from substratum languages which were originally generic terms. Words which had the force of generic terms in substratum languages may not be understood as as generic terms by the present-day populace, even local residents. An example would be the *Unstrut*, a river name in Germany concealing in the syllable *strut* an ancient Keltic word meaning 'river'. An example requiring less philological delving would be any of a number of river-names in Japan which end in *-betsu*, which ordinarily means 'separate' but is used as a phoneticisation of the ainu word *pet* 'river'. In areas from which the Ainu has long disappeared, it is probable that the word element no longer conveys any more to anybody than the *ec* in *Kennebec River*. In such instances the Japanese, similarly, add their own river term *kawa*. However, it is possible that some present-day speakers of Japanese know that *betsu* in geographic names means 'river', in which case we would consider including the term in the gazetteer glossary.

(2) Archaic and dialectic generic terms. Similarly, archaic and obsolete words or generic connotations in the mother tongue may not be understood generally, or even by local residents of an area. If they are understood locally, they may be regarded as dialect words. Often it is impossible to distinguish between

archaic and dialect forms without inquiring of a native of the area. For example, Turks have been asked if they knew the word *öz* which, though not entered in the dictionaries consulted, is found in an apparently generic connotation in many river-names, and occurs in Old Turkish (Uigur) with the meaning 'valley', and presumably 'river-valley' and 'river' as well. Those asked have said that they did not know the word in the sense of 'river' or in any similar sense. The question is, do the people living along such a river know *öz* to mean river or valley? Field work is called for here, such as we are seldom in a position to undertake.

(3) Uncommon metaphorical usages as generic terms. A large share of the major generic terms encountered the world over are obvious metaphorical extensions of meaning, such as the English *head* meaning point or cape, or the Russian *nos* and the Japanese *hana* nose in the same sense. Parts of the human body are favorite sources of this type of generic term in many languages, and there is often remarkable agreement from language to language between the geographic object and the part of the body chosen to describe it. Familiar metaphors cause little difficulty, but when a term with whose metaphorical generic use one is familiar is found applied also by metaphor but to a feature that one does not even include in the same category, communication is interrupted. *Head*, applied to low, flat, forested wetland or to a short, steep, tributary stream, *reef* applied to an upstanding layer of hard rock far inland, or *glade* for a gently flowing stream will at least surprise one unfamiliar with these regional usages in the United States. Some may even entertain doubt that they are really generics in these cases, or that they actually apply to the features to which they seem to refer, particularly if few examples of the usage come to hand. Bilingual glossaries from English to another language will not provide these meanings. Neither do foreign language to English glossaries provide much help for us in similar cases in other countries, nor are native speakers of the foreign language of much assistance either, unless they happen to know the feature in question. (...)

(4) Non-metaphorical elements in a name which appear to function as generics, for which the fact cannot be established. It often occurs that the specific part of a name will contain an element which resembles a generic term, as the element *water* in *Whitewater Lake* (in Manitoba, Canada). In this case, *water* is clearly a part of the specific, not the generic term. Now, it is true that in English most lake names contain a generic, *lake*, *pond*, or some other. Hence it is clear that *water* in Whitewater Lake is not a generic, even though it sometimes occurs as a generic in lake names, e.g. *Derwent Water* (in the English Lake District). The significance of *water* in river names is less clear, since in English the generic term *river* is sometimes not expressed but is implied. (...)

(5) Generic terms which carry a meaning apparently not in harmony with the character of the feature. In many cases where generic terms seem inappropriate to the entities named, it is difficult to establish which of the possible explanations is correct. Is it a misnomer, has the geographic character of the entity changed since it was named, has there been an unusal or unrecorded semantic development in the word, or is there reflected a difference in concepts or categories of entities?

In almost every quarter of the globe one finds peninsulas bearing in their names a generic meaning island. This may have resulted from a connection with the mainland having come about after naming, either by deposition or by coastal emergence. On the other hand, it may be that in a particular region a distinction between island and peninsula is not made at all or is not considered important, even if the distinction is ordinarily made in the language. It may also be that the feature is an island at high tide and a peninsula at low tide, which the map may not show. (...)

(6) Generic terms which classify the feature adequately for members of another culture group, but not for speakers of English. Just as many languages do not, on the everyday level, make use of the concept peninsula, even though English may, just so English is often lacking in terms for geographic entities as conceived by other peoples. Such a type of generic term is the Arabic *sayhad*, applied to hills as well as to desert areas - an apparent discrepancy. But when one considers that *sayhad* implies something like a sorched place, it appears that the Arab must, in designating a feature quite outside the everyday experience of the English speaker, use a generic term which has no exact counterpart in English. The English speaker, in designating that feature, will tend to use a generic term already familiar to him, and, noting the discrepancy in meaning between the English and the Arabic word, will hesitate to regard the latter as a *bona fide* generic term. Nevertheless, the Arabic word is just that, and is capable of application both to hills and desert areas.

The examples given above by no means exhaust the types of generic term problems. We have only scratched the surface. The problems arising for northeastern Asia, most of Africa, the islands of the Pacific, and much of North and South America - areas for which suitable linguistic material is lacking, or available and usable only with the greatest difficulty, will undoubtedly give us both new troubles and and new understanding.

Can dictionaries help?

Enough has been learned to give us an appreciation of both the help and the frustration that we can get from glossaries and dictionaries. The help will be obvious. The frustration stems partly from the fact that by selecting the more common words and meanings the lexicographers have left out the ones on which we need help most. We are aware of their selection problem and take no issue with their solutions, but wish the results were better adapted to our purpose. Frustration also stems in part from our doubts about the meaning of the lexicographers' defining words. Unless we are told, we can only guess at which of alternative meanings of, for instance, *meadow*, the lexicographer had in mind when he equated a word in another language to it. In fact, we do not even know, unless it is made clear, whether the lexicographer was any better versed in the variation of *meadow* than we were some years ago.

The problems and examples that have been discussed have indicated that our work with glossaries and maps is closely interconnected. When the glossary and dictionary definitions obviously do not fit an entity named on a map, one looks to the map itself, or other maps, for an additional connotation of the term. Sometimes this readily produces a satisfactory answer, sometimes not. The symbols used on maps are conventions, and therefore comprehensible only by parties to the agreement on the convention, and are almost inevitably inadequate for certain kinds of entities.

It is possible to symbolise on a map almost any phenomenon or attribute, but since the inclusion of many different symbols on a single map tends to obscure relationships it is customary to use relatively few symbols, to combine things that could be distinguished and to omit things considered dispensable. It is also a cartographic necessity in maps of smaller than large scale to generalise features that can be shown in more detail on the large-scale maps. Small projections from a relief feature may either not be shown at all or be indicated only by so few contour or form lines that distinguishing characteristics are omitted. (...)

When a name is recorded and standardised, the entity has to be called something. An inordinate amount of time can be spent either in detective work trying to discover what the entity really is, or in inconclusive argument based on different guesses as to significance of things around it. The results are likely to be far from the truth and three or four such names can use up more time than would have been required to process 300 or 400 names in a routine fashion. In an operation where volume of production is a consideration there is good reason to throw such names out of the file and not spend the time that would be required to solve the problems. Omission of a few such names does not affect materially the value of a gazeteer, but ducking the problems precludes a full understanding of the nomenclature of the particular area and perhaps of some fundamental principles that would be widely applicable.

We have been assisted in our work at almost every turn by the work of the lexicographers. Independently, we have made occasional discoveries which may be of use to them, and occasional rediscoveries which bear out their conclusions, arrived at possibly by other channels. Our work has led to what we believe are new insights into the terminology of one specialised field, which suggests that joint study of the vocabulary of other fields by subject-matter specialists and linguists working closely together might be fruitful. The work along these lines must be exhaustive if it is to yield a corpus which will serve the person consulting it. Without this exhaustive work, many of the less common but possibly more revealing items will be missing.

The unanswered problems set forth in this paper are offered as a challenge and an invitation to the lexicographers, in the belief that joint research in this field would be mutually profitable.

Extract 9 "Investigating Urban Speech"

by H. Kurath (1972)

Stratification on the Lower East Side of Manhattan

Twenty years after the sampling of New York City speech for the *Linguistic Atlas*, William Labov undertook a systematic investigation of six variable features in the speech of the Lower East Side of Manhattan (1964/1966).

The choice of informants was guided by a previous survey of the social structure of the Lower East Side of Manhattan by social scientists whose findings are based upon 988 representatives chosen from a population of about 100,000 inhabitants. For the linguistic survey the sample was reduced from 988 to 81 as follows: 488 were dropped because their native language was not English; 180 had moved out; 125 of the remaining 320 were eliminated by random procedure; of the remaining 195, 157 could be reached, and 122 of them were interviewed at length, whereupon 41 of them were eliminated because they were born outside New York City. This left the 81 informants - 45 of Jewish, 19 of Italian parentage - who "provided the main body of data."

To what extent the sample of 81 selected in this manner from the sample of 988 used by the social scientists is representative of the social types inhabiting the Lower East Side is hard to tell. Nevertheless, no other investigation of social gradation in urban speech, in this country or abroad, has been in a position to choose its informants with comparable information and circumspection. Readers of this stimulating and provocative study must of course be aware of the fact that the determination of correlations between speech behaviour and social class depends upon the degree to which the informants selected reflect the social structure of the community.

Labov's immediate purpose is to determine the social dissemination of variant pronunciations and the incidence of these variants in several styles of speaking on the part of the social types represented by his sample population. From such data he hopes to infer trends in usage within the community - the Lower East Side of Manhattan - and to gain insight into the social dynamics underlying them.

To secure information on the behaviour of the informants under varying circumstances, the author investigates five styles of utterance: (A) casual (informal) speech, (B) careful (formal) speech, (C) reading of texts (D) reading of isolated words, (D^1) reading of minimal pairs.

The variable features chosen for investigation are: (1) the occurence or loss of postvocalic / r /, as in *here, hair, hard, four, sure;* (2) the syllabic of *bad, half, hand,* found to vary all the way from [æ - æ·] to [eə - ɪə]; (3) the syllabic of *law, off, more,* said to vary from [ɔ· - ɒ] to [ɔə - uə]; (4) the consonants of *thin* and *then,* articulated as fricatives or as plosives.

The occurrence of the variants among speakers representing the upper middle class, the lower middle class, the working class, and the lower class, and the incidence of these variants in the styles of the several social classes are summarily presented in a set of graphs (1966: 222, 238, etc.).

The major findings are: (1) postvocalic / r /, as in *hard,* is increasingly more frequent from low to high class and from styles A to D. (2) Raised variants of the vowel in *bad,* represented by the digraph / eh /, are less frequent among the middle class than among the lower classes and decrease from style A to D. (3) Fricatives in *thin* and *then* are consistently more frequent from low to high class and from style A to D. (4) The social stratification of the raised variants of the syllabic of *law, off,* represented by the digraph / oh /, is less clear; but this variant is clearly more frequent among the lower classes than among the middle class and its frequency drops off sharply from style A to D.

If the statistics on which the graphs are based are accepted at face value, the inhabitants of the Lower East Side of Manhattan, whatever their social class, tend to break away from pronunciations current in their casual speech. They introduce the / r / in postvocalic position, tone down or abandon the raised vowels in *bad* and in *law,* and avoid the plosive consonants in *thin* and *then.* This trend is especially marked among the lower middle class.

Labov suggests that New Yorkers are on the defensive (Bright 1966: 100) and adopt other people's pronunciations when they want to appear to advantage. That is surely true of the stigmatic plosives in *thin* and *then,* the only non-English features. But the adoption of postvocalic / r / may have a more complicated background. Not only is / r / rather regularly heard both before and after syllabics over the radio and seen in print, but also nearly half of the 81 informants seem to be bilingual, speaking Yiddish or Italian in their homes and with friends, languages in which / r / occurs in all positions.

The author attaches great importance to the consistent correlation of the relative frequency of variants with social class and to the regularity with which the variants either decrease or increase from casual to careful speech, and further to the reading of texts and minimal pairs. The behaviour of the informants in styles of utterance (or levels of diction) betrays in part an awareness of prestigeous variants and in part the influence of the written word. These findings should stimulate scholars to apply Labov's technique to other speech communities, so that his view of linguistic change could be tested by other evidence.

Whether linguistic usage in other sections of Manhattan and in the other four boroughs of NYC exhibits the same social and stylistic patterning, as Labove claims, is more than doubtful. To be sure, some of the same variables have been observed in other parts of New York City by earlier investigators - from Babbitt (1896) to the *Linguistic Atlas* (1941; Frank 1948), and from C.K. Thomas (1942) and A.F. Hubbell (1950) to A. Bronstein (1962). But their social dissemination still remains to be investigated. The very fact that Labov found such a striking correlation between the dissemination of these variables with social indices on the Lower East Side suggests that other sections of Manhattan, characterised by very different social structure, can hardly conform to the same linguistic pattern. Only investigation comparable in method will give us reliable information on other sections of Manhattan - say Harlem and Washington Heights - and on the other boroughs of NYC. There is no substitute for informed carefully planned selective sampling. Until that is done, scholars will do well to set aside Labov's enthusiastic assertions couched in these words (Bright 1966: 107):

> Internal and external evidence leads us to think that our results apply generally to New York City, and that the patterns of social stratification which we studied are quite general.

It is the great merit of Labov's investigation to have taken full advantage of the results of a systematic sociological sampling operation of a limited section of Manhattan, to have drawn upon this sample of informants to obtain linguistic evidence for establishing correlations between phonological variables and social factors, and thus to determine trends in usage in that section of Manhattan. This is a remarkable achievement, destined to be a model for future investigations of urban speech communities. Wherever comparable sociological surveys become available, linguistics will have a golden opportunity to make significant contributions to our understanding of the complex social forces underlying linguistic change in urban areas. (...)

Negro speech in Chicago, Illinois

Two sampling surveys of certain aspects of the speech of Chicago have been carried out in recent years. L.A. Pederson's *The Pronunciation of English in Chicago* (1964) deals with the usage of the White population in its social gradation and forms the background to the investigation of the speech of the large Negro community within the city carried out by a group of scholars under the general direction of R.I. McDavid, Jr. (1966) and published in mimeographed form under the title *Communication Barriers to the Culturally Deprived*.

The latter study, supported by the U.S. Office of Education, undertook to establish the existing differences between the speech of Whites and Negroes, to determine the social evaluation of these differences on the part of Chicago Whites and Negroes, and thus to pinpoint those features of Negro speech to which the schools might direct their attention for the good of the Negro.

The director of the project, a native of South Carolina and long a resident in the Midwest, was uniquely qualified to design this research project after years of fieldwork both in the South and in the Midwest. His long interest in social dialect as a reflection of social structure and its implication for the life of the individual made him fully aware of the problems to be met. Moreover, he was fortunate in having as his associates a number of excellent linguists.

Previously gathered dialect evidence for the Midwest and the South - the former as background for the usage of the dominant White population of Chicago, the latter as background for the practices of newcomers - made it possible to select 160 critical items from the worksheets of the *Linguistic Atlas* to determine the more striking phonological and grammatical differences between the usage of Whites and Negroes.

Thirty Negroes were interviewed, 16 by L.A. Pederson and 14 by J. Willis, a Negro graduate student in anthropology. Pederson, who had previously investigated the usage of Chicago Whites (1964), recorded the responses to the 160 items in phonetic notation, Willis on tapes.

The informants range in age from 30 to 70 and represent all social classes. Six of them were born in Chicago (aged 30 to 60), 22 in the South, chiefly in the South Central States. Of those born in the South, 12 had lived in Chicago at least 20 years.

The Negro respondents are ranked from high to low in accordance with a complex sociocultural index, and in the 10 tables of variants their responses are consistently entered in the established sequence. In the tables, agreement with the usage of the Whites and deviations from it are identified by distinct symbols, so that any marked differences in the behaviour of upper-class and lower-class Negroes can readily be seen. So can the complexities of the actual situation.

We may take as an example the reflexes of postvocalic / r /, as in *beard, chair, horse, four,* which are presented by Pederson in Table 2. As is well known, in the Midwest / r / survives in that position as a constricted consonant [ə˞], while it appears as an unsyllabic [ə] in the speech of Whites and Negroes in the coastal South and large parts of the south-central states. With 2 exceptions, the 17 lower-class informants born in the South rather consistently have [ə] in these words, even the 7 that have lived in Chicago for more than 20 years. This is what one might expect. The surprising thing is that 4 of the 6 Negroes born in Chicago (age 30 to 60) rather consistently follow this Southern practice. Only 1 of them, a 30-year-old clerk, has adopted the postvocalic / r /. Residential segregation would seem to account for this situation.

The divergent behaviour of 3 upper class informants who came to Chicago after age 30 raises some interesting questions: a lawyer born in western Tennessee, aged 57, consistently uses [ə]; a social worker born in eastern Virginia, aged 69, has constricted [ə] with fair consistency; a minister born in Arkansas, aged 69, uneasily fluctuates between [ə] and [ə]. Personal attitudes as well as certain contacts conditioned by professional activities are surely involved.

The rating on the part of Chicago Whites of existing differences in pronunciation can be expected to identify features that stigmatise the Negro and thereby put him at a disadvantage within the urban community. In turn, the identification of such inferior features furnishes the necessary leads for planning the teaching of the socially superior variants to the Negro, variants that he can use at will when the situation requires it.

In a carefully planned experiment, V.S. and C.H. Larsen undertook to determine an evaluation of some of the more striking phonological differences between the speech of Negroes and Whites. White observers were asked to record on a five-point scale their reaction to specific items, presented to them on tapes, along such dimensions as upper class-lower class, educated-uneducated, pleasant-unpleasant, urban-rural, White-Negro. The essential agreement in the judgements of the White observers leaves no doubt about the social standing among Chicago Whites of the variants tested. See, for instance, exhibits 1.12 *four* and 1.14 *poor*. Negro observers, the Larsens found, largely agree with the reactions of the Whites, although they are less sure of their judgments.

On the assumption that preferred usage tends to spread, one feels tempted to say that tests of this kind could be used to determine probable trends in usage within a speech community.

The magnitude and the difficulty of the task confronting the teaching of a prestigeous type of English to the children of the Chicago Negro community are formidable. Family and neighbourhood tradition in a residentially segregated Negro population of 800,000 - built up largely since the First World War - are powerful, as this investigation has shown. To make headway at all, the identification of stigmatised features is a necessary preliminary to the teacher's problem.

Recent phonological innovations in Vienna

The popular speech of Vienna, a variety of Central Bavarian similar to that of Munich, has been the object of careful analysis from the structural point of view for half a century. It is spoken in the homes of most native Viennese, regularly used in public by the lower and middle classes, and of course familiar to those among the upper classes who no longer speak it in their homes. This vernacular, often referred to fondly as *echt Wienerisch*, has been the vehicle of popular plays and songs for many years.

In the schools of Vienna a very different kind of German has been taught since the middle of the nineteenth century: the literary language (*Schriftsprache*), which is based upon the dialects spoken in east central Germany. As a result, all Viennese are bidialectal in one way or another. Some normally speak the vernacular but readily understand school-taught German; others have full mastery of both dialects and use them at will in accordance with the circumstances; others again understand the vernacular but habitually speak a variety of Standard German. All of them read the *Schriftsprache* in the daily press and other publications, however they may pronounce the printed word. (...)

At the turn of the century, the Viennese vernacular had a symmetrical four-level system of oral monophthongs. E. Kranzmayer calls this stage of the dialect *Altwienerisch* (1953:209). By the time of the First World War, the monophthongisation of the syllabics in *weit*, *Maul*, *Haus* among the younger generation produced the five-level system of oral monophthongs described by A. Pfalz (1918) and reported by B.J. Koekoek (1953:12) as characteristic of the older generation in midcentury.

The Five-level System of Oral Monophthongs

high	i	ü	u	/widə/ 'again'	/ghü/ 'cool'	/dsux/ 'train'
mid close	e	ö	o	/bet/ 'bed'	/hö/ 'hell'	/offm/ 'open'
	↓	↓				
mid open	ę	ǫ̈	ǫ	/sęŋ/ 'see'	/šdǫ̈n/ 'steal'	/hǫs/ 'hare'
over open	æ	æ	ɔ	/wæd/ 'wide'	/mæ/ 'mouth'	/hɔs/ 'house'
low		a			/has/ 'hot'	

A generation later - at the time of the Second World War - the symmetry of this five-level system was shattered. While contrastive close / o / and open / ǫ / were preserved, the close front vowels / e / and / ö / were merged in the open vowels / ę / and / ǫ̈ /, respectively, as shown by the arrows in the vowel diagram above. How this asymmetry, this hole in the system, was mended is discussed at length by the author.

Kranzmayer attributes the merging of the two sets of mid front vowels to the influence of Standard German (*Hochsprache*), taught in the schools of Vienna, but without analysing the complicated background. A simple listing of the conflicting correspondences between Standard German (SG) and the Viennese vernacular (W) in typical words reveals the problems faced by the teacher of SG:

SG / e /:	Bett	Brett	Hexe	recht	Eltern	stellen	helfen	hell
W	e	ē	ę	ę̄	ö	ö	ǫ̈	ǫ̈̄

SG / e /:	Segen	sehen	betet	Seele
W	ē	ę̄	ę	ǫ̈̄

SG / ö /:	Köpfe	Hölle
W	e	ȫ

SG / ö /:	schön	Flöhe
W	ē	ę̄

Under the circumstances the teacher would presumably tell his pupils to pronounce the vowels in accordance with the spelling, sounding the graphemes e, eh, ä, äh without rounding the lips and the graphemes ö, öh with rounding. In the process the distinction between close and open mid front vowels would be eliminated in reading Standard German texts - whence ultimately also in the vernacular of the younger generation.

Two other changes in the phonemic structure of *Wienerisch* were in progress by 1950: denasalisation of nasal syllabics as in *hin* / hĩ /, *schön* / šẽ /, *Bein* / bã /, *Sohn* / sũ /.

Kranzmayer is inclined to attribute denasalisation to Czech infiltration; and yet, a similar change has recently taken place in the Central Bavarian dialect of Munich (Kufner 1962:71-73), where such an influence is unthinkable. Why not simply the effect of school-taught Standard German?

The merging of the strong postvocalic fricative / ff, ss, xx /, as in *offen*, *wissen*, *machen*, with their weak counterparts, as in *Ofen*, *Wiesen*, *weihen*, is even more recent. It is said to occur in the speech of less than 15 per cent of persons under 25 and to vary from word to word.

Kranzmayer links these striking changes in the phonology of *Wienerisch* since ca. 1900 to the social upheavals resulting from the two World Wars. The impoverishment of the linguistically conservative upper classes are said to have given free rein to trends inherent in the *Wienerisch* of the lower classes and to the intrusion of features of Standard German. This seems plausible enough as a general theory. And yet, some of the author's attributions to specific social forces and to certain inherent linguistic drives, advanced with no little enthusiasm, fail to carry conviction. Disagreeing sharply with the views of the *Sprachatlas* group at Marburg, he underrates diffusion through communication and overstates the case of parallel spontaneous phonological change emanating from drives inherent in the phonological system, which he calls polygenesis.

The author's challenging presentation of striking phonological changes in the former capital of the Austro-Hungarian Monarchy lays the foundation for planning a systematic sampling survey of the speech of Vienna in its social and regional manifestations. The 500 informants interviewed by the author over a three-year period - representing different age groups and several social classes in the 21 wards of the metropolis - could hardly provide the evidence required for a detailed description of the varieties of German current among social and age groups in the several wards (*Bezirke*) of the city. A set questionnaire levelled at known or expected variants and a systematic selection of representative speakers are essential in dealing with complex linguistic situations.

Phonological variants in the speech of young Parisians

In 1957 R. Reichstein sampled the usage of 556 girls enrolled in public and private schools of 5 of the 20 wards (*arrondissements*) of Paris with respect to three variable phonological features: (1) preservation or loss of contrastive low front and low back /á ≠ à/, as in *pattes* paws vs. *pâtes* pastries; (2) preservation or loss of contrastive short and long /ε ≠ ε̄/, as in *belle* beautiful vs. *bêle* bleats; (3) preservation or loss of contrastive unrounded and rounded /ε̃ ≠ œ̃/, as in *brin* stalk vs. *brun* brown.

The examples were presented to the informants on slips in such sentences as *il marche à quatre pattes* he walks on all four and *il mange des pâtes* he eats pastries. They read the sentences and then repeated them by heart.

The informants were assigned to three social levels on the basis of the occupations of their fathers. In the statistical treatment of the responses only the usage of the daughters of professionals and of workingmen are taken into account, the middle group being set aside. Even with this drastic simplification of the statistical problem the results of the investigation are highly significant.

These are Miss Reichstein's chief findings:

(1) The preservation of the three contrastive pairs of syllabics differs markedly from ward to ward, being consistently highest in Ward 16 and lowest in Ward 18.

(2) In the total sample of 556 informants, the preservation of contrastive / á ≠ à / ranges from 72 to 43 per cent; that of /ε ≠ ε̄ / from 58 to 23 per cent; that of /ε̃ ≠ œ̃ / from 30 to 10 per cent. It is suggested that the isolated quantitative distinction represented in /ε ≠ ε̄ / and the small functional load of /ε̃ ≠ œ̃ / favour the loss of these two contrasts.

(3) There are marked differences between the social extremes and between pupils in public and private schools, but without any clear-cut pattern from ward to ward.

(4) The preservation of contrastive /á ≠ à/ varies from word to word, being 50 per cent in *pattes* vs. *pâtes* but only 10 per cent in *rat* rat vs. *ras* shaved.

This may be enough to suggest the complexity of the social and regional behaviour of the variants of the three Parisian features investigated by the author. It is more than likely that phonological changes in progress in such cities as Vienna and New York exhibit similar complexities in their social and regional dissemination.

Reichstein rests content with a statistical analysis of the linguistic data in their relation to social groups and schooling in the 5 wards of Paris she chose for investigation - and wisely so. As A. Martinet points out in his concluding remarks to this article, all of the 20 wards of Paris as well as the suburbs will have to be investigated before the social drives and the controlling structural factors can be established with some degree of probability.

Extract 10 "The Middle Ground of Stylistics"

by W. Nash (1975)

The concept of 'structure'

In its approaches to style, literary criticism has an eye to certain matters which are almost of no concern, or of no primary concern, to linguistic stylistics: the life of the writer, the range and character of his works, the concerns and philosophies of his society and period. The linguist, on the other hand, will treat as matters of first magnitude textual features which a critic may regard as being of marginal importance: peculiarities of syntax, collocations of unusual lexical items, departures from morphological norms. Between these two realms of interest - the writer's creative personality on the one hand and the fine texture of his creation on the other - lies another domain, and a very important one. The literary critic will perhaps choose to refer to it as 'form'; in literary forms the creative mind embodies itself. The linguist will no doubt prefer the term 'structure'; the details of a text are involved in a cohesive pattern of functional contrasts and semantic gradations, a structural whole (cf. Lester 1969, Schwartz 1970, Wellek 1970, Fowler 1971).

'Structure' is the middle ground of stylistics - the field which both literary and linguistic expositors of style must enter in order to give specific application to their respective concerns. To facilitate the argument, it might be useful to present in tabular form the elements involved in the appreciation and interpretation of one kind of literary text, i.e. a lyric poem:

'SOURCE'	'STRUCTURE'	'STYLISATION'
The poet's life and works. His position in literary history. His use of certain poetic conventions or genres. His thematic obsessions. The character, beliefs, etc. of his society and times.	(i) 'Frame' - i.e. outer shape of the poem as determined by conventional prosodic forms and marked out by metre, rhyme, etc. (ii) 'Informative pattern' - i.e. the inner shape of the poem as a progression of episodes, observations, images, etc., plotted onto the 'frame'.	Lexical patterns (diction, metaphor, imagery). Phonaesthetic features (rhythm, rhyme, alliteration, assonance). Syntactic patterns, recurrence of certain grammatical features. The relationship between the language of the text and the superimposed prosodic devices of the 'frame'.

Here are our three areas of interest, set out under the conveniently alliterative labels 'source', 'structure', and 'stylisation'. In their habitual operations, literary critic and linguistic stylistician work from different sides of the table - 'work' in the sense of having a different set of preliminary assumptions about the purpose of their activities. Literary criticism at a fairly rudimentary level will thus treat a poetic text as having in the first instance a source in the poet's life and in the general character of his work; from which it might proceed to a consideration of the text as an example of a literary 'frame' (e.g. a sonnet, a ballad, a set of couplets) and might take into descriptive account some eminent features of diction, imagery and sound-patterning. A stylistic evaluation at an equivalently crude level will possibly examine some details of syntax and lexical collocation, relating these at need to the peom's superimposed organisation, or 'frame'; and will touch on the 'source' of the poem only insofar as information about the poet might help to establish habits or identify abnormalities of usage.

Greater depth of approach will require critic or stylistician to explore his own field in greater detail, and to begin to have a more appreciative awareness of the niceties and rewards of the other man's domain. The path to such awareness must lead across the middle ground of structure. There, in response to the demand for a more sophisticated account of the text, the critic begins to look for the individual impress upon the conventional design, while the stylistician tries to discern an organising principle in accordance with which apparently significant stylistic features are arrayed within a containing framework. Each for his own purpose becomes interested in what is here called the 'informative pattern' of the poem, and its relationship to the outer framework. The possibilities of that relationship are of course open and manifold: the prosodic frame may be regular or irregular, and the inner pattern of structure may coincide with sections of the frame or may cut across the external design. This open potential requires some freedom of descriptive technique. In dealing with elements relating to the source of the work, the critic will obviously use the inherited terms of his trade; similarly in describing features of stylisation the linguistic analyst will have recourse perhaps to some specific model of language, or at all events to generally-accepted linguistic terms and concepts. The middle ground requires something from each. The critic brings his intuitions of poetic form, born of long experience of poetry generally, or of the work of a particular poet. The linguist brings a useful predisposition to regard language as a process of meaningful contrasts, and a no less useful ability to specify these contrasts in precise terms. What the critic is required to accept is that his intuitions may be given a procedural shape. The linguist helps to create the procedure, because he is accustomed to such matters; but in creating it he must be prepared to regard the poem as the critic or the poet himself might regard it, as an utterance so uniquely personal that it dictates its own terms. He must be prepared, in other words, to devise a model to fit the poem, instead of making the poem obey a model.

A representative lyric: "Snow"

To show how these principles might work, we need a representative text, preferably a short lyric, understanding of which depends largely on how well the reader grasps the apparent counter-patterning of outer form and inner structure. Such a poem is Louis MacNeice's "Snow" (*Collected Poems, 1949*). Written in the early 1930's, this ostensibly slight piece has achieved some popularity- it was chosen by Kenneth Allott for inclusion in *The Penguin Book of Contemporary Verse* as a representative example of MacNeice's poetic style, and indeed it speaks in a characteristic accent. It is, furthermore, a poem that has evoked puzzlement and even controversy. Some twenty years ago, in the early 1950s, it was the subject of an interesting debate in the pages of *Essays in Criticism.* The discussion was initiated by a Mr. R.C. Cragg with a remarkable article entitled *"Snow, a philosophical poem; a study in critical procedure"* (cf. Cragg et al. 1953: 425-533, 1954: 227, 231, 333, 337, 339). This was the text upon which Mr. Cragg's study was based:

> The room was suddenly rich and the great bay-window was
> Spawning snow and pink roses against it
> Soundlessly collateral and incompatible:
> World is suddener than we fancy it.
>
> World is crazier and more of it than we think,
> Incorrigibly plural. I peel and portion
> A tangerine and spit the pips and feel
> The drunkenness of things being various.
>
> And the fire flames with a bubbling sound for world
> Is more spiteful and gay than one supposes -
> On the tongue on the eyes on the ears on the palms of your hands -
> There is more than glass between the snow and the huge roses.

Mr. Cragg's verdict on this text is that it is "an intellectual poem presenting a philosophical problem", and he puts the question "What is the critic to do with it?". His answer is worth recording:

> He has two alternatives before him: *one*, to hit on some method that will determine whether the statement of a philosophical problem can at the same time be a poetical statement, or *two*, to trace in a treatise the history of the problem of the One and the Many, beginning with Thales and pushing his way up to and through the *Parmenides*, the writings of Democritus and Epicurus, with a stop-over in the *De Rerum Natura* for poetical nourishment, and press steadily forward to the *Monadology*, the 'Antinomies' in The Critique of Pure Reason, Bradley's *Appearance and Reality*, the writings of Bertrand Russell, and draw breath when he has finished reading Mr. John Wisdom on philosophical worries, only to realise that with the introduction completed the time has now come to tackle the problem; it will not be put off any longer. (1953:427).

Clearly Mr. Cragg regards his second alternative as so much scholarly hocus-pocus, though (as he must have known) his parody does not hide the fact that in less extreme forms such methods are by no means foreign to the academic critic. He accepts the plain fact that cultivation, however intensive, of the field we called 'source' will not directly facilitate the reading of the text. It is necessary, as he puts it, "to tackle the problem", and to do this the critic must "hit on some method that will determine whether the statement of a philosophical problem can at the same time be a poetical statement".

This reads like an invitation to study the language of the poem and in fact Mr. Cragg's article is very largely devoted to a careful line-by-line exegesis of the text. It is an interesting, if sometimes over-ingenious, exposition; but what strikes a reader looking at the article after two decades of change in stylistics is firstly the lack of precision in relating critical feeling to linguistic fact, and secondly the absence of any effort to set obvious stylistic features into a simple but systematic array. The critical procedure is impressionistic - a circumstance not in itself objectionable. We can only begin from our impressions of the text. There are some impressions, however, that will guideus towards an understanding of the poem as a whole, and othersthat are peripheral or adventitious, and we can only try to distinguish one from the other by trying to relate them to the poem's structural pattern.

First impressions of the text

Le us, then, begin with some initial impressions of the poem. This is a stage of reading at which there will perhaps be the greatest variation of personal response from reader to reader. We cannot say for certain how everybody will respond to his first acquaintance with the text, or what details will first seize the attention. Certain impressions, however, seem almost inevitable. For example, there is more than one point in the text at which the poet's syntax becomes elliptical or obscure. What is the syntax of the first two lines?; are *snow* and *pink roses* co-ordinately governed by *spawning*, or do we understand the ellipsis of a "there were" before *pink roses*? Similarly, how are we to read *World is crazier and more of it*?; do we take it at its face value, reading *more of it* as an unusual kind of complement, occurring in co-ordinate harness with *crazier*? And although the interpretation of the phrase seems clear enough (at least to one reader), is there not just a hint of ambiguity in the construction of a complex nominal group like *the drunkenness of things being various*?

Such ellipses and impactions in the syntax may simply be a characteristic feature of the poet's style - and for information on this point the stylistician must appeal to the critic - or they may have some specific relevance to the meaning of this particular text. What they suggest at first glance is a feeling of elusiveness and ambivalence, as though what the poet wanted to say were just a little too complicated for simple and precise statement. This air of puzzlement intensifies with another, even stronger, impression of the poem. It reads like a riddle, with a riddle's reiterated formulations and challenges. The last line of the poem - *There is more than glass between the snow and the huge roses* - has the form of a statement, but in effect leaves the reader with a question: what is it, what is the nature of this *more than*? It can hardly escape his notice that this questioning final assertion echoes a reiterated motif, the declaration that *World is more*. Is it possible that in this recurrent feature we have the most reliable clue to the structure of the poem?

'Frame' and 'informative pattern'

To answer that question we must try to demonstrate a relationship between an apparent 'frame' and a proposed 'informative pattern'. The poem has a 'frame' of three four-line stanzas, composed in a loose metre (or in a series of approximately compatible rhythmic impulses) that promotes the general impression of a talkative pursuit of some elusive definition. The verses are unrhymed until the last stanza, when a fairly banal rhyme (*supposes-roses*) is used to clinch the final statement which in effect clinches nothing. Rhyme, then, is not an organising principle of the text; it is not used to expound an 'informative pattern', and it marks the prosodic 'frame' only at this one point, where it also has an expressive value as a symbol of the inconclusive conclusion.

The essential organising device is surely the *World is* motif, which occurs in all three stanzas. An attempt to separate this motif typographically from the remainder of the text results in the layout shown below:

1st observation:

The room was suddenly rich and the great
bay-window was
Spawning snow and pink roses against it
Soundlessly collateral and incompatible:

1st propositional motif:

World is suddener than we fancy it.

2nd propositional motif:

World is crazier and more of it than we
think,
Incorrigibly plural.

2nd observation:

I peel and portion
A tangerine and spit the pips and feel
The drunkenness of things being various.

3rd observation:

And the fire flames with a bubbling sound
for

with

3rd propositional motif:

world
Is more spiteful and gay than one supposes-

Summation:

On the tongue on the eyes on the ears in
the palms of your hands -
There is more than glass between the snow
and the huge roses.

This layout represents what appears to be the 'informative pattern' of the poem. The text consists of a series of 'observations', or recordings of the immediate and personal sensations of the poet, interrupted by repetitions, with some variations, of the 'propositional motif' beginning with the words *World is*. The alternation of these suggests that the poem is both a personal record *and* an attempt to make a generally-valid statement about experience; thus we become aware of the 'subjective' voice of the poet speaking antiphonally with the 'objective' voice of a philosophical other-self, an alternation of roles which is reflected in the shifts of personal pronoun from *I* to *we* to *one*.

In the first stanza, the 'propositional motif' follows the 'observation'; it occurs deductively, so to speak, as a conclusion drawn from an arresting experience. In the second stanza, the motif is inductive, preceding the 'observation' as a statement of principle which is then illustrated. In each of these occurrences, the 'propositional motif' and the attendant 'observation' are clearly marked off from each other; the grammar and the prosody of the text are carefully matched. In the third stanza, the two elements are more intimately connected, and the motif is neither inductive nor deductive. Its role now is 'illative'- the poet appears to be saying "here is an inference which we must draw from a particular circumstance". The conjunction *for* characterises this illative function. Its role, however, is no more than quasi-inferential; the two halves of the sentence are really collateral statements not connected by any kind of causal or explanatory relationship. An air of pseudo-explanation invests the whole poem; the dash (-) before the last two lines, for example, looks misleadingly like the pause before the summation of an argument. In fact there is no real argument. The two final lines present a 'summation' which is simply a re-statement of the poem's riddle as propounded in the successive 'observations' and 'propositional motifs'. The poet seems to be telling us that we are exposed to a medley of disparate and sometimes contradictory experiences, and that the difference between one experience and another is more than a matter of physical separation. We are evidently challenged to define this *more than*. To do so we need to look more closely into the details of the poem's language; we must make some study of the complex of devices that make up its 'stylisation'.

e 'propositional motifs'; parallels and variants

This departure into the narrower field of stylisation can best begin with an examination of the most eminent structural device, the 'propositional motif'. If we set out the motifs in sequence, marking their structure in columnar form, certain features of language are brought into prominence:

World is suddener	than we fancy it	
World is crazier and more of it	than we think	incorrigibly plural
World is more spiteful and gay	than one supposes	

The clauses in the left-hand column show clearly (i) the striking use of the noun *world* without a definite article, and (ii) the recurrence of comparative forms - the *more than* theme is established in the 'propositional motifs' before its final statement in the 'summation'. They also suggest, lexically, a pattern of attributes both related and incompatible: suddenness, craziness, spitefulness, gaiety. This same characteristic of lexical variation is seen in the clauses of the middle column, where we find a pattern of verbs expressive of conation: *fancy, think, suppose*. These indications of 'moreness', of variety, of association and incompatibility, are summarised in a phrase in the third column, *incorrigibly plural*. So at one end of the prepositional scheme we find *world*, the all-comprehending whole;

while at the other is the poet's reponse to the world's unending detail and variety - *incorrigibly plural*. Examination of the 'propositional motifs' thus reveals much that is significant about the grammar and lexis (the diction, if that word is preferred) of the poem. At this point we may indeed have made the essential discoveries, but it is still worth continuing our exploration from structure into the smaller points of stylisation.

Grammatical features

In the grammar of the poem there are elements, some already noted, that make a claim on the attention and that can be related to our intuitions of the poem's structure and meaning. The most significant appear to be the following:

(i) Deixis. The form of the 'propositional motif', as we have seen, is not *The world is*, but *World is*. This appears to mark out for *world* a meaning which might possibly be expressed as "an aggregate of perceptual data" - as opposed to the ordinary reading of *the world* as "our planet, or our environment, with its physical features, demographic facts, social codes, etc." An associated semantic feature is evidently that *world* goes beyond the particular experience, *Weltanschauung*, of the individual. "*The* world" of Louis MacNeice is certainly included in the poem, but when the poet says *world* he incorporates the particular event into a general and transcendent pattern.

(ii) Comparison. This is perhaps the most obvious grammatical feature, and it is important in its close connection with the poem's lexicon. It is an element we have noted in the structurally-important 'propositional motifs', where its function is to suggest that the magnitude and variety of experience lies always just beyond the reach of human imagination, thought, or supposition. Not only, therefore, does it convey the notions of plurality and degree; it also insists that *world*, as a complex of experiences, can never lie wholly within the comprehension of the individual.

(iii) Shifts of pronominal focus. The text used here incorporates four personal pronouns: *we*, *I*, *one*, *your*. Of these, *we* and *one* occur with what might be called a 'generalising' tendency, while the purport of *I* and *your* is by contrast 'individualising'. Thus *we* occurs in the first and second 'propositional motifs' with the evident sense of "people in general". The *I* of the second 'observation' brings a shift of pronominal focus, but the perspective changes again with the use of the impersonal *one* in the third 'propositional motif'; there is a final shift in the 'summation', with the movement from *one* to *your*. (In a later reading of the poem, *your* is replaced by *one's*. This seems to me to destroy the symmetry of distribution, in obedience to which the 'generalising' pronouns are associated with the 'propositional motifs' and the line of the poem echoes the motifs, but the penultimate line in effect sums up the 'observations'.) It will be seen that these shifts are linked to the 'informative pattern' of the text, and mark the switches from personal report to general aphorism.

(iv) Tense shifts. The poem begins in the past tense. Then, with the second 'observation', when the pronominal focus narrows to the *I* of the poet's own person, there is an abrupt shift to the present. The *is* of the intervening motifs has an existential rather than a temporal reference, but probably helps to make the onward movement from *the room was suddenly rich* to *I peel and portion a tangerine*. Time enters the poem as a flow of sensation reaching from *then* to *now*, a continuum in which *world* exists.

(v) Co-ordinations. This sense of a continual process is reinforced by the effects of co-ordination as a major syntactic device. There is no subordination to suggest patterns of causation and relationship. Experience is deployed in time, but not in sequences of cause and effect; sensations occur simultaneously and collaterally. There is one instance of a conjunction that appears to relate a circumstance to a conclusion, but as we have noted elsewhere this turns out to be merely quasi-inferential.

(vi) Subject-predicate relationships. The agencies of the poem are presented both in human and non-human terms. *I peel and portion a tangerine and spit the pips*: the human being is an agent, whose volition is exercised upon the objects around him. But objects are also volitional agents - the inanimate has animation. So, *the great bay window* is the subject of a verb which denotes the generative power of a living organism; it is *spawning snow and pink roses*. In the third stanza, *fire* occurs as subject to a verb-adjunct construction, *flames with a bubbling sound*, which presents an analogy between *flames* and verbs expressive of human action or manifestation (e.g. *laugh, sneer, hiss*). *World*, in short, is an agent, an existence in itself, a counterpoise to *I, we, one*. This would suggest that our earlier definition of *world* as "an aggregate of perceptual data" does not go far enough. Here is more than the philosopher's *world*; here is the poet's world, the incarnation of experience, the endowing of everything with a distinctive vital principle.

Lexical patterns

Specific points of grammar can thus be interrelated, in the light of the poem's 'informative pattern', and collectively can be shown to have an important bearing on the meaning of the poem, particularly on the interpretation of *world* in its relationship to the limited power of human perception. The lexicon of the poem supports or conforms to the interpretations suggested by the grammar of the general structure. Through its diction, the text builds up patterns of reference to a number of intersecting themes, i.e.:

(i) The theme of plurality. This is reflected in *more of it, incorrigibly plural, things being various*, etc.

(ii) The theme of arbitrariness. A number of items suggest the unpredictable or ungovernable: *suddener, crazier, incorrigibly, drunkenness*.

(iii) The theme of collaterality. The word *collateral* actually used; but 'collaterality' is above all represented by the *and*-collocations which occur throughout the poem.

(iv) The theme of incompatibility of opposition. *Incompatible* is the poet's own word. An example of a dual incompatibility is the assertion that *the fire flames with a bubbling sound*. *Bubbling* suggests water; the fire is manifested by an incompatible characteristic. Furthermore, *flames* denotes primarily a visual effect, but one which (incompatibly!) is perceived in auditory terms. The collocation *spiteful and gay*, in itself a collocation of incompatibles, is related to the preceding clause, in that *spiteful* completes a semantic equation with *flames*, while *gay* corresponds to *bubbling*.

Apart from these, there are one or two half-explicit or soft-focused oppositions. In the first stanza, *snow and pink roses* suggests (through the adjective) a colour contrast; in the third stanza, *the snow and the huge roses* presents the contrast as one of size, presumably implying a comparison between the snowflakes and the rose-petals. These oppositions are very quietly hinted. Even more discreetly stated is the contrast implied in the second stanza, between the careful peeling and portioning of the fruit - a matter of almost geometrical scruple - and the haphazard spitting out of the pips that make the eating of it inconvenient. However, this brings us at last to the point at which the clear evidence of the text begins to blur into the promptings of personal intuition.

The meaning of the poem

If the text will yield no more, we are finally obliged to attempt a statement of its meaning; which in this instance involves an explanation of the *more than* of the final line. Yet it may be said that the poem both offers and withholds the possibility of explanation. It acknowledges time, but as a continuum of experience, not as a chain of consequences expressible by 'therefore' or 'so'. It insists on the omnipresence of something called *world*, but presents it as a dance of plural entities and not as an integral scheme. It thus seems to deny the very assumptions on which rational explanations are based. But why should we expect a poem to satisfy philosophical cravings?

It presents a pattern of structure and style, and from that pattern we might infer the following statement of its meaning. Because experience (*world*) must be mediated to us through different senses working concurrently (*on the tongue on the eyes on the ears in the palms of your hands*), we will never perceive it as an integrated whole. Similarities and analogies will present themselves, but things that seem similar in one way will simultaneously be apprehended as different in another; thus the whole pattern of experience will keep shifting and making new intersections, and we will never be sure of any clear access or boundary (*glass*) between one perception and the next. The plurality of *world* is 'incorrigible' because sensations enter through diverse channels. It is this diversity of perception that makes *world* so hard to grasp; this is the poem's crucial *more than*. Because of it, *world* continues to elude the operations of the mind. We *fancy*, we *think*, one *supposes*, yet still there is *more than glass* - more than one simple objective boundary or distinction - between comparable experiences. Snow and roses are both alike and unlike in the perceptual flux.

On its own terms the poem suggests this meaning. We may wish, however, to go beyond the text, and to look for confirmatory evidence in the domain we have called 'source'. Is it possible that in this poem MacNeice takes up a favourite theme, or one which he handles elsewhere? Here the broader perspective of the critic is indeed useful. He can inform us of the existence of a poem called "Plurality" (MacNeice 1949:265) which was written more than a decade later than "Snow" and which begins as follows:

> It is patent to the eye that cannot face the sun
> The smug philosophers lie who say the world is one;
> World is other and other, world is here and there,

and which reacts against the concept of the "One Absolute" with the assertion that

World is not like that, world is full of blind
Gulfs across the flat, jags against the mind,
Swollen or diminished according to the dice,
Foaming, never finished, never the same twice.

One poem, as all critics know, can comment on another; so 'Plurality' provides an expanded comment (it is a much longer poem) on 'Snow'. To know this is useful, pleasant, and illuminating; it confirms one's possession of a poem. That possession must begin, however, with a close reading of the text in and for itself.

This is no new doctrine; it is one to which any literary critic would dutifully subscribe. Over the years, however. the terms in which it is practised have necessarily been enlarged to accommodate new impulses, the most powerful of which has come from the study of linguistics. This impulse should be appreciated for what it is - a predisposing force, not a logically-ordered extension of one field into another. It is not necessary for a literary critic to be a qualified linguist; ordinary sensitivity to current ideas, however, must encourage a 'linguistic consciousness' which he will bring to his interpretative tasks. For many, there remains the problem of how to give the 'linguistic consciousness' its due. It is to that problem - perhaps the central, unavoidable, as-yet-unanswered question of current stylistics - that this paper has addressed itself.

Part III *LANGUAGE VARIETY IN APPLIED LINGUISTICS*

Editors' introduction III

The importance of register studies for foreign language teaching

It is a central tenet of currently prevalent attitudes to foreign language teaching that the learner should acquire the ability to match his linguistic choices to the situation in which he finds himself. It is clear, then, that register is a crucial factor in the construction of foreign language teaching material.

Some colleges and universities have traditionally offered courses and 'hurdle' examinations in foreign languages for undergraduate and postgraduate students, but for a number of different reasons (among which are the unwillingness of specialist departments to spare syllabus time and of language departments to provide tailor-made courses) these have been shrinking at an alarming rate, so much so that a recent survey carried out at Sheffield (Hutchins *et al.* 1971) expresses concern over the lack of documented but undigested information.

Are there any shortcuts in teaching languages for the use of the scientist? Can and should 'specialist' language proficiency be grafted on to a basic 'general' language course that must precede it? Is the ordinary language teacher equipped to deal with the often ill-specified requirements of a non-literary expert audience? Until recently objectives of such courses were not fully formulated (Hilton 1971), although the good teacher will always try to incorporate language variety into his material and adapt a course to the specific needs of his students.

Clearly, the successful development of teaching courses which are based, or pay due consideration to, language variety, requires intensive efforts in various fields of research. The kinds of research needed, and their integration, are discussed by Halliday (1969). It is argued that we need not only linguistic analyses of the registers we wish to teach, but also a 'learner typology' which might define, more precisely than we are able to at present, the needs of the student and the part the language will play in his life. Halliday also discusses the need to consider whether a particular project is best undertaken by individuals or by a team, by L1 or L2 speakers, by linguists/language teachers or specialists in the technical area concerned. Recent work on the elaboration of a short reading comprehension course in scientific German for university chemistry students with no previous knowledge of the language suggests that very satisfactory results can be obtained by a mixed team of experts in linguistics, language teaching and the non-linguistic discipline which the language teaching is to serve (Butler *et al.* 1972). In this project, the aims of the course were very closely specified, and the linguistic content of the material was based on systematic linguistic analysis of appropriate source texts (cf. Butler 1973 and 1975, Hartmann 1975).

Of special interest to teachers of '*langues de spécialité*' is the work of the CREDIF team at St. Cloud who, in addition to the renowned '*français fondamental*', have published basic vocabulaires for areas such as literary criticism and agronomy, as well as a 'core scientific vocabulary', the '*Vocabulaire général d'orientation scientifique*'. These materials have led to the outline development of courses in French for foreign students, the initial stages of whi[illegible]re based on the '*français fondamental*' findings (Gougenheim *et al.* 1956/1964), later giving way to a graded treatment of the more specialised aspects of the language required by particular groups of students (Gaultier 1968).

The importance of register studies for native language teaching

Register also has an important part to play in native language teaching. Those working on language acquisition in children have long been aware of the problem of specialisation in language use (Lewis 1969, Wilkinson 1971), but it is only recently that links have been established with educational failure in schools (Barnes 1969, Creber 1972).

Extract 11, taken from A. Davies (1968), discusses the relationship between the general emphasis on 'situational' teaching and the teacher's increasing recognition of language variety as an important factor in instruction (cf. Doughty *et al.* 1971). The aim is to make the pupil aware of the effect of situation on language, and to increase his ability to produce utterances which are appropriate and in other ways adequate as a means of communication within a particular situation. Davies expresses dissatisfaction with current approaches to the teaching of register, arguing that they move towards language from predetermined notions of situational differences. He proposes an alternative approach, based on some kind of 'structural semantics', which starts with an examination of the various meaning choices realised in the language itself, and moves outwards towards the situation.

The paramount importance of situational variables in language teaching is the theme of the article by C.N. Candlin (1971) which forms *Extract 12*. Candlin argues that the emphasis on selection, gradation and pattern drilling has made language courses insufficiently situational. He goes on to discuss some of the ways in which the techniques of sociolinguistics may be used to collect datw on which truly performance-orientated teaching can be based.

The importance of register in foreign language teaching

Extract 13, the final contribution to our Reader, by J. Jelínek and F.C. Stork (1972), describes a specific research project concerned with the teaching of a restricted language, that of scientific and technical Japanese. The Japanese language has the advantage of being divisible into a number of 'sub-languages', which correlate with elements of situation, so that register differences become particularly clearly delimited. This article shows how the adoption of a formal underlying grammar, combined with a detailed dictionary and clear formulation of objectives and teaching methods, has contributed to the construction of a conspicuously successful course.

Extract 11

"Registers in English Teaching"

by A. Davies (1968)

English language varieties

(...)The most recent *situational* tendency of L1 (perhaps influenced by ESL; more likely by linguistic notions) can be seen in the attempts to make use of the concept of language *varieties* and, in particular, of those varieties which have been called *Registers* and *Styles*. This concept is a valuable one because it has to do with the elusiveness of language definition. It states, more or less, that there is no such thing as *a language* (except perhaps in people's minds: which is for most purposes perfectly adequate as a definition). Any one language (*a language*, e.g. English) is made up of a series of languages, or, more usually, *dialects*. It is at this border between language and dialect that the elusiveness of language definition is most commonly seen. Chinese and the Scandinavian languages show the problem in different ways. Chinese is reckoned to be a language made up of a series of dialects, and yet there is no mutual spoken intelligibility between these dialects. It is political reasons that make us call Chinese a language; it may be historical ones too, but then we do not consider English and German today as dialects of one another. In Scandinavia, Norwegian and Danish *are* mutually intelligible but, again for political reasons, we term them languages and not dialects. Political (or social) reasons then may be just as important as linguistic (i.e. the determination of mutual intelligibility) in deciding the relationship between a language and a dialect. All language can be seen as a broad continuum divided arbitrarily into *languages*: on each side of the dividing lines there will be shaded areas which are mutually intelligible on both sides. Where the lines are drawn is arbitrary: between some languages (e.g. Danish and Norwegian; Dutch and German) there will be very large shaded areas.

What is true of language as a whole is even more true of individual languages. English is made up of a series of dialects, some of which differ very slightly from others (i.e. there is a large shaded shared area). But the elusiveness does not stop at dialect. It goes right down to the single individual's speech, to *idiolect*. These idiolects group together in a variety of ways: thus the idiolects of all Scots make up the Scottish dialect of English. But even this simple political/geographical dialect is not so easily established because we cannot take entire idiolects of all Scots. Some of them speak other languages than English, and if we say: of all Scots *speaking* English, the definition becomes circular. Scottish English is that language spoken by Scots when they are speaking English. The same circularity appears in the definition by speaker or *user*: who is a Scot? a man who speaks Scottish English; what is Scottish English? that language spoken by a Scot.

Language definitions probably have to be circular and probably do need both criteria - the political one and the linguistic one.

This elusiveness is again apparent for the social varieties. What is the 'register' of, say, policemen's English? One way of fixing this is to collect the idiolects of *policemen* when they are actually acting as policement, i.e. in the role of policement, and establish (or attempt to do so) what they have in common and what is distinct from the collected idiolects of, say, firemen, criminals and lawyers and from those policemen when they are in other roles (say that of *fathers*). The notion of register (like that of *language*) is a slippery one; it needs to be supported by a previously made sociological distinction: i.e. who is a policeman? The curious problem arises here that the sociologist when asked the same question may define a policeman's role by the distinguishing features of *dress* and *language*: this may help for policemen, but hardly for *fathers*, where the register definition becomes entirely circular (Banton 1965). What then is the register of policemen's English? Is it *all* their combined idiolects? Let us now use idiolect in the more restricted sense of *langue* or *language system*, i.e. the *rules*, as it were, of policement's English. Is the register of their English equivalent to their langue? There are two issues here. The first is the Saussurean *langue/parole* distinction, or system and actual speech. Saussure distinguished, it will be remembered, between langue and parole in language, between the *system* and the actual speech. What we observe is speech: what we postulate as the underlying relationship is system or *langue* (Saussure 1915). Putting it crudely all speakers of a language employ the same *langue* but produce very different *paroles*. It policemen's register is not system (i.e. *langue*) then it is actual speech (i.e. *parole*), i.e. the sum of what individual policemen have said - which will incorporate all sorts of irrelevancies. So it must be system, i.e. what interests us is the systematic nature of policemen's register. The second issue is that of one and many langues. Do speakers as policemen and as fathers employ the same or different systems?

It seems to us that they do both and that Transformational Grammar includes a helpful explanation for this ambiguity. In its explanation of the similarity and difference between say, Declarative Sentences (Statements) and Interrogative Sentences (Questions) Transformational Grammar (TG) suggests that a choice between the two (along with a number of other kinds of sentence) is made right at the most abstract level. Similarly a choice among registers could be situated at the same initial stage.

Thus all sentences in analysis would include a dummy register element which would involve choosing one register (including a neutral one). It must, of course, be stressed that we are discussing methods of accounting for similarities and distinctions in langue, *not* for the way in which speakers actually create sentences. It may also be that in order to account for the differences between registers we should need the kind of categorisation rule which is of use at the present extreme edge of grammar. These categorisation rules are used to make clear the distinction in syntax between say, *murder* and *destroy*, e.g. the convict murdered (not destroyed) three warders; the convict destroyed (not murdered) everything in his cell. Metaphorically, of course, these rules can be broken but that is the function of metaphor.

However we may account for register, it remains a slippery and unsatisfactory region. What seems clear to the writer is that the claims for register have been exaggerated to teachers of English (L1) and that it has intrigued them; that it has also seemed to them the most useful contribution of linguistics to L1 teaching. Further it seems to the writer that it is in the use of register that L1 teachers see the present way into situational teaching. One teaches register partly because this is a feature of the language, but more because it is *relevant* and *real*. Relevant because it deals with the needs of the child by pointing to English in actual life round him (Quirk 1962) and real for obvious reasons. It lends itself also to *Discovery* procedures because it allows teachers to put pupils into a discovery framework and provide them with a discovery routine. Thus, at its most obvious, pupils can be given texts on a common theme and asked to discover *markers* of various kinds. All that is meant by markers here is those distinctive or characteristic features which help us identify a language utterance as belonging to one rather than another register. Thus the *respective*, *hereinafter* and *witnesseth* of a legal document are markers of legal English; the *Time, Gentlemen, Please!* of a publican's English (distinguished, be it noticed, by intonation and by role from the interrogative); the *Visiting Hours* on a house gate of medical or professional English (distinguished from general invitations by being a complete marker in itself).

It is the position of the writer (and the argument of this paper) that the approach to register mentioned above and described below is too heavily situation orientated; i.e. that it moves to language from situation and that this approach is treacherous (because of the difficulties in establishing register); further, that it pre-empts the existing possibilities of moving to situation from language.

We shall now proceed to a discussion of ideas on egister, more elaborate than that above, and an outline of teaching techniques employed to teach register. This will take up most of the rest of the paper; at the end we shall suggest an alternative approach to the teaching of semantics. For this is really what it is all about. Register is an attempt to teach meaning through situation; our alternative proposal will be for teaching meaning through language. (...)

The teaching of register

Let us look at the problems which arise here for the teacher. How does he set about *teaching* register? He has two purposes in view: one is to show the influence of *situation* on *language*; the other to extend his pupils' knowledge of and control over adequacy.

The first approach is to take texts at random - well, not quite at random because we want them to exhibit some striking distinctions. We assume that registers, like languages, exist. There are, for example, the registers of sport, philosophy, journalism. Here are three texts, one from each. Which is which and how do we know? (They are not in the expected order.)

1. My temptation to say that one might take a sensation for something other than what it is arises from this: if I assume the abrogation of the normal language-game with the expression of the sensation, I need a criterion for the identity for the sensation; and then the possibility of error also exists.

2. United went close to scoring in the 35th minute when after a brilliant back header by Law and a miskick by Brown, Connelly had a shot diverted by West. Brown made amends by clearing off the line from Connelly.

3. United States Phantom jet fighter-bombers shot down two Soviet-made MIG-17 jet fighters and fought the highly developed MIG-21s in the first dogfights over North Vietnam this year.

These fall into place at once. No. 2 is obviously sport, No. 3 journalism, which leaves No. 1 to philosophy. (If we hadn't known No. 1 was philosophy we might have wanted to label it psychology.) Role and mode are the same; the passages may differ in formality or style, but this is difficult to show without *other* philosophy, sport, etc. passages in different *styles*. They distinguish themselves, however, essentially in field. When looking for 'markers' our evidence for thus allocating these texts to Register, we are inevitably attracted first by vocabulary, lexical items. *United, scoring, back header, miskick, shot,* and so on: these are from sport and particularly soccer. *Fighter-bombers, dogfights, Vietnam,* these, in association with one another, with *United States* and with *Soviet-made* and with the adverbial *this year* indicate journalism. The words *temptation, sensation, criterion, identity, language-game* all suggest philosophy (or psychology) and within philosophy a particular school concerned with language. The vocabulary inter-association (or collocation) and the grammar are also indicative: *went close to scoring, brilliant back header by Law, had a shot diverted, made amends*: these are so collocational within soccer as to be clichés. *United States Phantom jet fighter-bombers* - this long noun pre-modification is typical of journalism, as is the past tense in association with adverbial present reference. The first person *My, I* along with the present simple and the use of few adjectives: this is philosophical writing of a kind.

It would be possible to go into much closer analysis (such as the first person conditional) but this is perhaps sufficient to indicate the possibilities - and the deficiencies.

Having done this, what next? Further examples of *these* registers to illustrate other markers? Or other registers? (Remember that we are using these for *teaching* purposes). There is a certain sterility here because it works on a narrator-like series principle ... and then ... and then ... This is the practical difficulty. The theoretical one still exists, that of establishing ab initio (without doing any formal analysis) that these texts are really different; since the sport text comes from a newspaper, should we call it journalism rather than sport?

A more productive approach is to take one register and show how it adpts to situation by itself making use of varying markers. Here we are holding one parameter (e.g. *Field* of Discourse) constant and showing how the other vary. Thus the following texts all belong to the register of geography or travel or guide-books: all are about (whatever that means) Inverness:

1. Burgh, co. t., at end of Caledonian Canal, scot; tweed and cloth industry; fisheries and agr.; p.23,316. (Gazetteer of the World (Pears Cyclopaedia))

2. INVERNESS, Inverness-shire, 29,603 LB. AA Patrol Service Centre, Milburn T Inverness 33213 (Mileage Chart Town) Map 51D. LH11-230 5-10 S1230-230 630-10 Accom Bur T34353 ECWed MDMon/Tue LP 1030 etc. (A.A. Handbook)

3. Historic City of the North known as the Capital of the Highlands. This Royal Burgh looks a modern and prosperous town and is a favourite holiday centre. The once great Northern meeting is no longer held, but there are athletic sports. There are bagpipe competitions, a Spring Musical Festival and excellent concerts. etc. (R.A.C. Circular Tour in Scotland)

4. Inverness has long been renowned as a touring centre; but its full advantages have been emphasised by the increase of motoring. Roads run east, west, north and south; it is a most convenient centre for rail excursions and, of course, for steamer trips along the Caledonian Canal. etc. (Ward Lock and Co's *Guide to Northern Scotland*).

5. I entered Inverness. Moray Firth was a blue as the sea at Capri and the light in the streets was a glaring as in Tangier. It was very pleasant; but it was all slightly incredible. (H.V. Morton's *In Search of Scotland*).

   (These passages taken from material prepared for L1 teaching by Mr. J. McGhee of Aberdeen College of Education.)

Except for the first these are all excerpts. The complete passage would be necessary to make the point fully. The advantage of this approach is that it is productive in the sense that it is *suitability*, especially *adequacy*, rather than mere *difference* (which can reduce to trivial difference of subject matter) that is being conveyed. The fact remains that, useful as this is (for how long is not clear - especially with less graphically distinct texts) it still suffers from the theoretical disadvantage of *assuming identity*, i.e. working from pre-determined situations in order to elucidate situation. What is needed is an approach that begins from the language differences themselves and then works out towards situation. (This is not, of course, to be extreme, to say that one is blinkered to *obvious* facts of situation.) This means working out from the formal semantic systems. Here we are concerned with making use of those formal systems that operate contextually within semantic systems. Here then we follow the theory put forward by J. Lyons (Lyons 1963).

Register through language

What makes a text in police register *different* from one in criminal register; or what makes a guide-book account of Edinburgh *different* from a City advertisement? Let us assume (and this *is* an assumption) that in both comparisons the grammatical systems are not severely different. If this is so then the differences must be partially accounted for by the differing uses of the relations between lexical items. What this implies is that the *reference* of the items is irrelevant, i.e. their "truth" to the facts does not matter. What does matter is the paradigmatic relationship (that of replaceability) between item X and other items of the language. What could take item X's place, what could not - and so on? All this is part of the *Meaning* of item X. Thus part of the meaning of the item *inspector* (in our police register) is that it is used in relation to *sergeant*, *superintendent*, and so on, but not in relation to *crook*, *judge*, *fire-chief* and so on. It is then part of the meaning of, say, *superintendent* and *police chief* that they are synonymous.

Lyons suggests such *meaning* relations as incompatibility (of which antonymy is a special case), hyponymy, synonymy. Thus for *incompatibility* we can suggest *police ranks:* to be an *inspector* means that you *cannot* be any other rank. For *antonymy* we may suggest *male: female*, a special case of incompatibility because opposites; or *open: shut;* opposites, but less either/or than *male: female:* i.e. the *open: shut* contrast is gradeable; it is not a binary choice. For *synonymy* we may suggest, say, *magazine* or *journal*. *Hyponymy* may be illustrated by, e.g. *blue: mauve*, *navy*, i.e. one item productive of two or more items from its branching node. There is the further special case of *converse terms*, i.e. such terms as *father* and *son* which are *not* antonymous but which are incompatible in relation to one another.

The aim, as will be seen, is to establish networks of terms, each of which forms a lexical subsystem. It will also be noted that such networks are fairly straightforward to establish for the more obvious clusters (or topics) such as colour and ranks (incompatibility); colour and botanical terms (hyponymy); kinship, etc. (converse terms). But the obviousness of these clusters only means that they are in frequent use in comparison with one another. Such relations exist everywhere and can be uncovered. It is the position of the writer that demonstrating and uncovering them is a major task in English teaching and that on them depends the success of register teaching. Such relations as those noted above are not the only ones, of course. There are others such as direction terms, food and meal terms (Halliday 1961) and so on. All topics can exhibit these relations.

Now it may be argued that in proper situational teaching the rules are *there* but they are to be adduced from the carefully selected and graded material: this obviously applies to the grammar where the teacher knows what rules he is dealing with (the ones he wants his pupils to come to terms with) but he does not teach the rules. So for semantics. A selection of material is made on two grounds, one in that (at the common-sense level) it exhibits differences of 'register' in one or more parameters (i.e. police/fireman; or police spoken and police written); the other in that it contains examples of these structural semantic relations that have been mentioned above. For it is *because* of these (and others yet unworked) relations that the registers differ. This may mean that, to use McIntosh's terms, we must, as teachers, concentrate on Adequacy first, start on what is known, what is within the language, before going on to Appropriateness, which has to do with those features external to the language which relate participants to situation i.e. a perfectly suitable utterance would be both appropriate and adequate, which would involve politeness, intention, understanding, acceptance of role and so on. All language is *appropriate* to the speaker; as teachers our aim is to see that our pupils' language is *adequate* to the *situation*. For that we must know both language and situation, but it is language we must know first.

Let us look at a simple and perhaps trivial work-out of this suggestion of teaching register from language as well as situation. (And it must be stressed that it is no more than a suggestion which underlines the writer's dissatisfaction with the present trend of L1 register teaching.)

Here is the sports/soccer passage quoted earlier:

> United went close to scoring in the 35th minute when after a brillian back header by Law and a miskick by Brown, Connelly had a shot diverted by West. Brown made amends by claring off the line from Connelly.

A text is useful in teaching as a starting-point. But what we would be concerned with is not so much the features of this as indicative of the register of soccer, but the fact that the use of these features and their *meaning* relations would produce well-formed soccer sentences. Thus the pupil's native intuition would be immediately seized on: it would not be a matter (as it seems at the moment) of *collecting* examples and spotting markers, but of using and creating (generating) language along its formal relationships *within* a possible register.

Thus the tenses in this passage are all past. Present tenses are possible in some cases in soccer (e.g. a sports commentary) but in no case here. Past tense here then is a special case of incompatibility with a zero other element (as with, say, clergyman: clergywoman?, boy? etc.). All well-formed soccer sentences then which involve, as these all do, a judgment, seem to demand the past tense. Is this so, can we generate others in the present tense? Again *the line:* we can suggest a *synonymy* relation of *boundary*, but not border, tram-line; and one of *incompatibility* of *field*, *middle*, *goal* and so on. Try as we will it is difficult to avoid generating the limited technical vocabulary of *soccer*, *line*, *header*, *shot*, *miskick*, *clearing off*. *Make amends*, is more flexible because less technical. Again, the prepositional phrases *by* + noun (three in lines 2 and 3) and *from* + noun (line 3): the incidence of these suggests passive-like construction; it also suggests the frequency of the prepositional phrase in soccer sentences. The *synonymy* relation is clear; what of the *incompatibility* one: can soccer sentences be generated in the active and not the passive? And so on. It would seem possible to use this technique to generate sports sentences of all kinds, to vary them by mode and by formality; and then to make use of further sports texts as checks on their well-foundedness. Such a technique might be useful for less clearly marked registers.

The *way* in which register is taught is rather trivial: it is, in Green's terms, a matter of *teaching technique* rather than *educational method* (Green 1964). What is worrying about the present register approach is that its educational method is *situation* expounding not *language* discovering and creating. What is suggested here, then, is that an approach which uses some kind of structural semantics, however loosely, will have as its educational method (i.e. as its goal) the creation and discovery of language.

Extract 12 "Sociolinguistics and Communicative Language Teaching"

by C.N. Candlin (1971)

Situational language teaching

The need for realistic context or situations for language teaching has long been recognised by language teachers and materials writers, certainly at least since Sweet: *The Practical Study of Languages. A Guide for Teachers and Learners* (1899) and Jespersen: *How to teach a foreign language* (1904), and indeed this need is re-iterated in the majority of current language teaching texts. In brief, the writer of materials sets himself the task of producing for the learner examples of 'live' language employed in 'real' situations, so that as Reibel explains "the language he (the learner) learns from should be as much like the language he himself is going to produce as possible" (Reibel 1969).

My main stimuli to this article are two-fold; *one*, and this is a point first adumbrated by Newmark (1966) that situational language teaching has been frequently insufficiently situational because of the counter-reality effect of linguistic grading and selecting on the one hand and pattern practice drilling on the other, and *two*, that current and recent sociolinguistic research has indicated lines of approach and methodologies towards the accounting for situational linguistic variation which should evoke a re-evaluation of the situational content of much current language teaching materials.

Without entering into a discussion of the persuasive arguments of Newmark and Reibel (1968) for the role of the second language learner as a builder of his own grammar in a Chomskyan and non-behavioural sense, we may make, I think, the general observation that whatever our methodology (and it should not be forgotten that a great number of learners acquired competence in a foreign language via now fashionably discredited teaching procedures of, say, Grammar/Translation), it is the object of all language teaching to develop the learner's competence in the target language. Equally, we may observe that not only will this competence be acquired through performance in the target language during the process of learning, but also that we should not equate internalised mastery of the rules of the target language on different linguistic levels with the ability to communicate effectively in a range of given social situations. In short, it is not clear to me whether situational language teaching is intended as one of the strategies for engendering competence or as *the* strategy for teaching performance. If the former, we can agree that it is only one of many possible methodologies, if the latter, then adequately displayed from the socio-linguistic point of view it can be the only possible methodology. Any random observation of current language teaching materials will, however, reveal the present confusion: in attempting to teach *performance* skills, namely, to teach the complicated ability to function appropriately linguistically in a range of situations, (what Hymes refers to as 'communicative competence') a language teaching methodology constructed on the supports of selection, grading and pattern practising has organised this performance material with the achievement of linguistic *competence* directly in view. As Newmark (1966) observes: "instead of devising techniques that induce the model to act out roles for the student to imitate, the applied linguist has devised techniques of structural drill that put barriers in the way of dramatic behaviour and a premium on the personality-less manipulation of a formal repertoire of verbal behaviour." - put in a more examplificatory way, we are all aware that a great deal of worshipping at the shrine of the 'oral approach' is misplaced, in that for example, it is frequently *written* language or perhaps Abercrombie's *Spoken Prose* that our students are chanting conversationally as a substitute for actual spoken models, and that to continue the example and change the mode, the continued practice in the writing of personal letters by reference to formal models can only be absurd when set against reality.

The implication of my first point is now clear, and in essence supportive of an approach to language learning on the basis that language teaching materials which have as their special goal the training of learners to perform orally and in writing in the target language, must become performance-oriented and truly communicative.

As the second point, and one which has to do with the contribution of socio-linguistics to this truly communicative language teaching methodology, I take for granted that language teachers are centrally concerned with the fact that any individual linguistic encounter between participants will always convey more than the simple cognitive content of their exchanged messages; that this extra information may be conveyed by paralinguistic features, but is also a function of choice among lexical, phonological and grammatical variants; that moreover for this extra information to be comprehended there must be some sharing of rules for the selection processes; and, finally, if there are rules they must be statable, and if statable, teachable.

What is also clear, and has been extensively documented by Labov (1966) these selections are not independent of each other but co-vary, i.e. the selection of one variant in one set is strongly predictive of the selection of another particular variant in another set. If then we add to the above the statement that a single communicating individual is involved in a wide - and while we have only a situation-etics rather than a situation-emics - perhaps unpredictable variety of roles, the complexity of sociolinguistic analysis and therefore of the raw data of truly communicative language teaching becomes apparent.

Since, however, the methodology of language teaching, if such a term is to have any meaning, must involve active participation by the teacher, writer and learner in selection processes as far as data-presentation is concerned, and if these selection procedures for, say, Reibel's unedited and raw texts are themselves governed by learners' interests and language learning needs and targets, it may be that we shall be able in our language teaching models to reduce this complexity of communicative events. This faith is further supported in my examination below of some common sociolinguistic categories in relation to their value to language teaching.

Register theory v. communicative interaction

It is, however, convenient at this point to issue a preliminary caveat: this concerns the current attraction of neo-Firthian variety theory and in particular the concept of 'register' for writers of language-teaching materials. Sociolinguistically, that is from the point of view of the interrelationship of fluctuating linguistic choice with personal relationships and beliefs within varying communicative situations, I should make it clear that I am not so much interested in, say, 'the language of science' or 'the language of the police', that is some fixed core of argot or jargon which is frequently restricted in any case to lexical variation, but rather in the variation and fluctuation of the language of your scientist or your policeman as he enters different domains or spheres of activity and assumes different roles. In short, to oppose linguistic *interaction* to in-group jargon.

Investigating further the suggested alternative to the 'language of occupational groups' the following selection of categories from sociolinguistic research can, I think, be usefully adapted for communicative language teaching, provided we keep two warning thoughts firmly in mind: firstly, that there is considerable danger in too glib an adoption of common terms without a corresponding clear specification of the connection they have with citable settings and situations, (remembering here that this precision of citation is a legitimate demand of the language teacher, particularly if we are going on to suggest as a practical methodology a higher proportion of dramatic action and role-playing, real or vicarious, that is participated in or commented on in his classroom teaching) and secondly, a problem from two sources which Lado (1957) comments on; that is, few of the domains of language use or the factors of participant relationship that I refer to below can be regarded as universal and therefore of the same value for L_2 learners from different cultural milieux, and secondly that there is an especial difficulty for English as an L_2 in this regard because of the quantity of mutually different yet in their own region 'standard' Englishes in the world. Each region will have varying formal features of English tuned to varying social functions and this will preclude a universalist approach.

What I say here, of course, is an argument against 'universalist' L_2 courses, of which in English we have already too many, and a plea for particular courses which will be directed to particular learners in particular milieux.

To return to the matter of sociolinguistic categories, I refer first to Fishman's use of *domain* in his *"Who speaks what language to whom and when?"* (1965) and his *Language Loyalty in the United States* (1966). Fishman uses the term to indicate spheres of activity characterised by certain recurrent formal linguistic features, and suggests furthermore, that the access to or availability of domains to an individual will clearly depend on other factors such as, for example, youth versus age, urban-dwelling versus rural-dwelling, adherence to different social and professional groups and the like. These domains would correspond most nearly to the situations or contexts of much language teaching material and would, therefore, include, say, family life, shopping, the classroom, visiting friends etc. The crucial point is that left there, domains remain, with the possible exception of lexical items, quite vague and imprecise in relation to the specificity of the formal linguistic items that are intended to mark them off. What is required is another crossing category, that of 'roles' played by characters in these spheres of activity or domains, and in particular the 'relationships' between these roles.* For example, it is at this point that one wants the ubiquitous chief personalities of text-books to contact a range of different other personalities in an array of situations with a corresponding display of fluctuating linguistic selection for the expression of varying language functions.

I return to the matter of language and speech functions below, but it is worth emphasising here that the introduction above of role-relations, as for example in the family domain the contact between parent and one or another child, brother to sister, is very necessary if we are to take up the linguistic *interaction* emphasis of sociolinguistics. We should then, demand that language teaching materials do in fact show linguistic variation correlated with role-relation variation, instead of the common experience of the latter occurring without the former. I stress here again, supported by empirical research, that there will always be recurrent and therefore monitorable and teachable linguistic features characterising these spheres of activity, roles and role-relations.

It is also not sufficient simply to indicate role relations as I have done above without referring to the influence on these relations of environmental constraints including factors of, say, length of acquaintanceship, degree of friendship, kinship, relative status and prestige relationships of the participants (cf. Labov 1966) together with their focus or degree of involvement in the topic. It would be easy to add to this list other factors as the degree of uncertainty about relationships on the part of any of the participants, and note how all may imply corresponding change in formal linguistic features.

These and other factors of general control operate also on a third category, that of *pragmatic language or speech functions*. A considerable body of literature is available in this area, including Jakobson (1960), Hymes (1964), Weinreich (1963), Firth (1950) from a linguistic point of view, Malinowski (1935) from an anthropological viewpoint, and among philosophers, Searle (1969) and Austin (1962).

These recurrent and co-occurent functions include, for example, *commands and requests*, *invitations*, *suggestions*, *offers of help*, *gratitude*, *agreement*, *disagreement*, *threats*, *insults*; *encouragement*, *apologies* etc. Such a list can clearly be extensively lengthened, but for language teaching this range must be controlled by pedagogic factors of age and interest of learners, ultimate language performance goals and needs. There is an obvious reference at this point when stressing the value of communicative language teaching of language functions, to teaching grammars which have displayed grammatical structures under such language function headings (using the language function 'offer of assistance' for decontextualised drilling of the English conditional for example). My argument at the outset returns again at this point, namely that for those learners who seek spoken performance skill, and clearly not all do, though frequently all receive, there can be no alternative to a performative approach stressing the learner's imitative skill and creative abilities.

However, there is again a caveat to issue here: language functions cannot be regarded as necessarily discrete or necessarily uniquely interpretable, or necessarily realised by unique linguistic formulations. We must take into account, for example, that there is a great compatability of suggestion and advice, approval and disapproval, question and command. What may, again, be intended as a request by an encoder may be construed by his decoder as a command; (we should note here perhaps the special role of phonological features, particularly suprasegmental features, and note also that the distinctions made may not always be overtly linguistic but paralinguistic or extra-linguistic - kinetic, for example.)

Sociolinguistic analysis and classroom practice

The suggestions for categories and approaches made above cannot in this short article claim to be exhaustive; they are, however, sufficient, I think, to indicate the general contribution that sociolinguistics can make. What is now needed as a conclusion is a brief indication of the methodologies that are required, both for the initial collection of the data, and its subsequent adoption in classroom materials and techniques.

Concerning the initial collection of data, a number of possibilities suggest themselves:

1. Discussion recordings of small friendship groups, each participant individually monitored by a recorder, and where possible, the whole process videotaped. This particular procedure is common to sociological investigation of small-group dynamics. The results of such recordings, when transcribed, can then serve as discussion and interpretation material by the group members. From this interpretation and subsequent playback, it is possible to show direct relationships between changes in function or role relation and the selection of linguistic and para-linguistic variants.

2. The monitoring of language or speech functions as a particular area of research presents particular problems if one does not wish to rely on introspection. It is wasteful and very probably unrewarding simply to wait on the occurence of, say, commands and requests to occur. It may be equally unrealistic simply to list the linguistic expressions of such language functions and ask a range of native speakers to annotate them from the viewpoint of expression of conceivable role-relations. The possible exit from this impasse

is perhaps again the method suggested under (1) above, namely, asking participants in a recorded discussion to suggest ways after the event of rephrasing certain uttered expressions, why what was chosen was chosen and so on, and what effect do they feel changes or alternate expressions would have had on the relations between the participants. A number of self-analysing questions suggest themselves here, I think. Clearly any expression, when interpreted, will embody more than one of the general factors adumbrated earlier which impinge on relationships, and this will make for complex analyses - but we cannot ignore that it is this kind of information which prompts a speaker to use one expression rather than any other.

Turning now to the classroom procedures, and again here necessarily cursorily, the implication of the statements above for language teaching methodology must be that learners become involved in activities like classroom role-playing, dialogue participation, the observation and monitoring of enacted situations, whether actual or filmed; the whole not only involving their participation themselves, but also their analytic judgements about the relationships of participants in situations they observe. To reverse a dogma, it would be meaningful for them to talk *about* the language they are learning to perform in, because critical and teacher-guided observation of himself and of others in performance situations is only what we cannot deny is a process that is tacitly in continuous action by the language learner. From the viewpoint of curriculum development we should concentrate on 'semantic' syllabuses of selected speech functions rather than runs through the grammar of English. Note, however, that I am not maintaining here that the learner is simply being drilled into adopting from others verbatim certain linguistic expressions for certain defined situations; far more he is being presented contextualised data for internalisation and future generation of new utterances linked to his communicative needs.

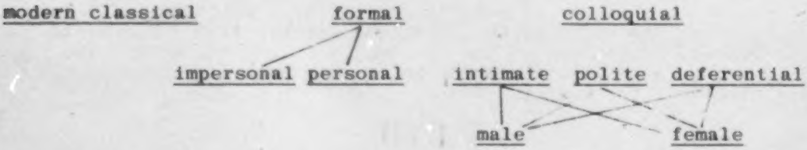
Extract 13 "The Teaching of a Reading Knowledge of Scientific and Technical Japanese"

by J. Jelinek & F.C. Stork (1972)

Language styles

The increasing relevance of the Japanese language in science and technology has made the teaching of reading skills in that language an important priority (Foo-Kune 1970). Japanese now appears to be competing with German after Russian for second place in the demand for translation into English of scientific literature. The propects of tackling this problem have been incomparably less than is the case with German or Russian since there are many more scientists who have some knowledge of German or even Russian than Japanese. The statistics showing the demand for translations from Japanese also hide another important aspect of the situation: the suppressed demand, stemming from the fact that many institutions are resigned to their inability to deal with Japanese material, owing to lack of translators and the high cost and low quality of translations obtainable. The idea of devising a course in Japanese specifically for scientists and technologically qualified librarians and information officers has proved to be an efficient way of tackling the above problem.

It has been maintained in the past on the basis of comparison of a respectable number of languages that there existed no such thing as a restricted language (cf. Trim 1969). In the general sense natural language is understood to be a total means of communication, i.e. capable of communicating about all aspects of human activities, whilst restricted language is sometimes defined as a communication system restricted not only in its sets of forms but also in the range of phenomena about which it can communicate. Chemical formulae or traffic signals are sometimes quoted as examples. Modern Japanese, however, as a total natural language is one of these few modern languages alongside e.g. Javanese, Korean, in which grammatically, and to some extent lexically, discrete sub-languages must be distinguished. In modern Japanese, for example, separate sets of grammatical phenomena are characteristic of different styles:



On the above figure the only sub-language relevant for scientific and technical literature is the 'formal impersonal' style. Although individual sentences in this style tend to be longer, they operate with a more restricted and better defined grammatical system than any of the colloquial styles. It will make it clear how different the situation is from any of the more familiar European languages to say that a considerable number of grammatical phenomena, particularly many verb forms and their irregularities, will predictably not occur in a text written in formal impersonal style. In other words, as a system of grammatical phenomena, scientific and technical Japanese is a restricted language. A short-cut in teaching can therefore make use of two important factors: (1) for the purpose of scientific and technical reading much of the grammar relating to colloquial Japanese can be ignored and (2) for reading purposes only, more economical teaching methods can be adopted omktting all reference to productive skills.

Teaching reading comprehension

Language teaching is an entirely separate activity from both linguistic research and the theory of teaching. But whether consciously or only under the inertia of tradition, it seems to be determined in its approaches and methods by an underlying attitude to language teaching, as well as by an underlying grammar.

In the teaching of a fairly well established subject with the usual period of time at our disposal and the usual vague definition of target skills to be achieved at the end of that period of time, we are not necessarily aware of the underlying theory. When, however, in summer 1969, we undertook the task to develop a short term intensive course of scientific and technical Japanese on which British scientists and information officers should be trained to read and translate independently Japanese technical literature, there was certainly the greatest need to consider the choice of both the underlying linguistic description and the teaching method on which our approach should be based.

The possibility of choosing one of the conventional grammars was ruled out by the ill-defined categories of such grammars resulting in terminological confusion and the great number of separate pieces of information arranged without sufficient conformity to a system. In view of the relatively narrowly defined purpose of the course it was possible to make use of a formal grammar for teaching purposes. This of course, did not mean that a formal grammar itself became the object of teaching on the course; it became the underlying grammar providing a comprehensive reference for the compilers of the course.

Fortunately, at the time our project began, there was available a formal grammar covering fairly completely the required style (Formal Impersonal) of modern Japanese (cf. Jelinek & Novak 1970). It was in the form of a flow-chart type sequence of binary decisions with bi-dimensional tables and positionally defined word classes - a machine translation input analyser intended for Japanese-English translation. This particular type of formal grammar proved amenable to teaching.

One of the most conspicuous features of modern language teaching is the active approach. Students are taught, with the aid of models for imitation and various response type drills under time stress, to speak the language. The other skills are often cultivated as derivative of the primary objective: the speaking knowledge. If, however, the purpose of a short term intensive course is defined narrowly as the teaching of a reading knowledge, with as much accuracy, reliability and speed as possible, with a minimum amount of time spent on other skills, there are bound to exist possibilities of short cuts. In this case some of the oppressive features of a traditional language course, such as time stress or compulsory memorisation at a given time, can be eliminated, thus releasing some of the energy which is so much needed on an intensive course.

It should be made clear at this point that the adoption of a particular underlying grammar does not necessarily prejudice the resulting skill. It is up to the method of teaching to achieve the target skills by such means as the arranging of the order of presentation of the teaching materials, proportioning them into individual hours, balancing explanation and drilling. Nevertheless, a formal grammar, particularly of a flow-chart type, can be more easily moulded into an optimum order of techniques which yield themselves easily to training and can be proportioned with more flexibility. All kinds of looking up aids can be more easily made to contribute to their teaching than would be feasible with an underlying traditional grammar, with its indivisible large complexes which must be presented at once (e.g. the subjunctive in French).

The Sheffield course

In the absence of an overall model at the beginning of the project, the approach was empirical. A series of short preliminary tests on an eight member test group was carried out at the beginning of the project with the aim of establishing quantitative guidelines for the proportioning of material in several key units of the prospective course. These were the units attempting to teach materials directly derived from machine translation (MT) techniques. The use of such techniques in language teaching, unless carefully prepared, easily produce a shock: the students are used to conventional language teaching techniques and are therefore not favourably conditioned to accept sophisticated look-up devices such as are introduced in those units of the course. At the end of the first year when the first full pilot course was mounted, the method of presentation of these unconventional teaching auxiliaries reflected our anxiety to the point that the units in question became the most carefully prepared and most successful three units of the whole course. This, in its turn, presented an unexpected problem: the feeling of rejection of more conventional materials in subsequent units on the part of the participants. The Pilot Course mounted in the second year of the project, whilst retaining the smooth acceptance of the unconventional materials, some of the undesirable after-effects were eliminated by certain rearrangements in the teaching order.

Participants for both Pilot Courses mentioned above were recruited through announcements in the specialist press, in addition to locally recruited members. The first Pilot Course was carried out with nine participants with ages ranging from 23 to 51, average age 35. Apart from an electronics technician, all the participants had some experience in technical translation from other languages and their specialisms included: electronics, librarian science, chemistry, physics, mechanical engineering, ship building. On the second Pilot Course with fifteen participants, the range of ages was from 20 to 51 and the average was slightly lower than the previous year. The range of specialisms was considerably wider this time including also: photo-chemistry, linguistics, medicine and pharmacology. Participants of the first Pilot Course monitored the second course as much as their circumstances allowed, so that at least one person from the first course was present at all stages of the second course. This situation provided useful feedback on all the modifications made.

Each Pilot Course lasted eight weeks of five teaching days each. A teaching day consisted of five compulsory hours and one optional hour. The separate hourse had the following contents:

(1) Explanation, begun by handing out the day's explanation sheets and the day record sheets, introducing new material and checking on its comprehension by means of simple drills and personal contact with the tutors. (The simple drills accompanying explanations were given on the overhead

projector and adjusted according to the immediate situation on the first course. As a result of very positive reaction from participants these drills were printed as part of the handout in the second Pilot Course.)

(2) Drills, done independently by students and personally supervised by the tutor, whose role was to detect inadequacies in the handout, help students in difficulties, noting the causes of such difficulties and to evaluate the teaching materials in their immediate functioning. Quantitative achievements on drills by each student were recorded on the Day Record Sheet for later evaluation. Qualitative achievements were recorded and later assessed by the tutor. (In the second Pilot Course a detailed chart of progress of the previous course was available and helped the tutor to assess the overall progress for each hour.)

(3) Initially designed as a question hour, but already during the first Pilot Course developed into a continuation of drills. It began by a retention check and its results were recorded by each student on the Day Record Sheet. (Regular retention checks were abandoned in the second Pilot Course in order to relax the atmosphere. This was prompted by certain cases of mental blockage caused by retention checks on the first course. The data obtained from regular retention checks proved not to be essential in the second course.)

(4) Application, began after a one and half hour lunch break by introducing further new material as in period (1). Most often this new material was related to the subject matter dealt with in the first hour and was less in quantity.

(5) Drills combining the day's material with that of the previous days. (In the second course separate optional drills were also provided for the sixth hour. These were usually more difficult and divided into separate specialisms. From a very early point in the course the additional drills contained actual paragraphs from technical journals, and later on complete texts of a smaller size which were taken from specimen literature supplied by prospective participants. These additional drills were primarily intended for an independent revision after the course, and only students who had finished the whole day's drills and had no high priority back-log were allowed to tackle them on the actual day.)

The teaching materials were handed out during the Pilot Course. They were specially compiled and anticipated the development towards an unsupervised course in that everything, with rare exceptions, was on paper, leaving a marginal role for oral explanation. This self-sufficient nature of the written hand-out was further reinforced for the second course, where most of the oral correctives required in the first course had been incorporated in a written form. Oral explanation, it was hoped, would be restricted to drawing the student's attention to the most important aspects of the written explanation. The teaching materials amounted to approximately 600 pates for the first course and increased to over 700 pages for the second course. It consisted of the following:

(1) Explanations - usually single pages of condensed introduction to new material, if possible with graphic representation for mnemotechnical purposes, followed by a few examples of its operation and, in the handout for the second course, by an adequate number of simple drills, with solutions provided on a different page. Similar explanation, though usually of smaller proportions, was provided for the fourth hour. The explanation required by students in addition to the handout either during the explanation hour or the subsequent drilling was recorded by the tutor with a view to incorporating it in the written handout for the next running of the course.

(2) Drills - were provided for each day's second, third and fifth hour, with additional drills (see above) for the sixth hour. The drills for the second and third hours aimed at mastery of the previous explanations, whilst those for the fifth hours illustrated the newly introduced items" place in the whole system up to that point. The additional drills attempted to specify the role of the day's new items in separate specialisms. About 80% of all drills and 100% of the additional drills were excerpts from specimen texts, with occasional simplifications to suit the given purpose. The drills which were not excerpted were produced artificially and vetted by Japanese informants. The total number of drills from the first course was doubled for the second course to provide more choice for the participants, who originally had to tackle all drills regardless of specialism. In the second course, only an indication of quantitative optimum was given and the participant could omit tasks unrelated to his specialism.

(3) Auxiliaries - occupied more than a half of the total bulk of the teaching materials, comprising two technical Japanese-English dictionaries (character dictionary of 200 pages and over 2000 character entries, Kana dictionary of 40 pages) and a grammar glossary enabling the looking up of complete verb forms (in the widest sense of the term) amounting to over 50 pages.

During the last week of the course the students were supposed to read and translate into English about 10 pages of actual scientific and technical literature. Most of these texts had been brought by the students themselves as specimens of what they would have to deal with after the course. Where the student had not brought his own text he had to choose a text from the reader, consisting of specimen texts from former students.

In the first course the achievements of the best three students at the end of the eight weeks were:

(a) ca 200 spaces (about eight lines) of a difficult text (first paragraph of a patent) accurately translated into English with the aid of dictionaries in 30 minutes.

(b) memorisation of 500 characters in useful compounds,

(c) enough supervised training to be able to continue improving without supervision.

The lowest achievement in the group of nine (one student) was:

(a) the ability to translate only about two lines (ca 60 spaces) of the same difficult text in thirty minutes,

(b) memorisation of about 100 characters in compounds, although a number of other characters were vaguely "familiar" to him, and

(c) enough supervised training to continue reading texts of his own specialism, although he will run into difficulties which will require the tutor's help.

Average achievements, which are also the personal achievements of two students in the group of nine are:

(a) 5-6 lines (i.e. ca 140 spaces) of the same difficult text translated, and a little more of it comprehended in thirty minutes.

(b) memorisation of over 400 characters in useful compounds, with an acquired routine to memorise others, and

(c) enough supervised training to read Japanese technical texts of their specialism with occasional help from the tutor.

In the subsequent year the participants of this first Pilot Course continued working independently, to the extent their differing circumstances permitted, on Japanese texts of their own specialisms. Their resulting standards were checked one year later with the following results: four of the nine participants had reached standards comparable to a good professional translator in terms of both reliability and speed. It is worth mentioning that three of the four can now translate literature of their specialisms into English more efficiently than their tutors on the course. On the other hand, one of the nine participants of the first course had found no opportunity through the year to deal with Japanese and the skill he had acquired by the end of the course has been virtually lost.

In the second course one of the fifteen participants was compelled to leave the course half way through, owing to her failure to obtain unpaid leave from her employer. Apart from this unfortunate case all the participants completed the course. Of the 14 students who completed the course, 13 have reached standards equal to, or higher than, the previous year's results, and the most successful students displayed a reliability and speed at the end of the course which would nearly match that of a professional translator.

From the point of view of the theory of language teaching, the purpose behind the experiments conducted within the framework of the first and second courses was to develope a model for this type of language teaching and to develop an optimum teaching method so that a self-instructional version of the course could be designed.

Evaluating the results

The best way of arriving at an optimum teaching arrangement is by means of a controlled teaching experiment. Two aspects of the optimum arrangement can be distinguished:

(1) Qualitative: order of presentation,
techniques used,
role and choice of explanatory language versus graphic patterns, glossaries, charts, tables and other auxiliaries,
their shape, lay-out etc.,
type of drills for each section.

(2) Quantitative: time allowed for the digestion of each explanation (sufficient to eliminate time stress),
number and complexity of drills for each stage,
intensity of drilling.

The controlled teaching experiment is carried out by:

(a) elaborating a model of the course, which must be quantified,

(b) approximating to the model by an experimental running of the course under strictly controlled conditions, eliminating external disturbances to the minimum and measuring all quantitative data at each step,

(c) comparing the measured values with the quantities anticipated by the model (evaluation), thus bringing the model nearer to reality,

(d) repeating the experiment (as many times as necessary) until the model reflects realistically achievable optimum quantities which serve as an indication of the best arrangement of the course.

This procedure can give us some confidence for the subsequent challenging task of transferring the course into an unsupervised i.e. self-teaching package.

A model based on the concepts mentioned above could be expected to suffer at every step from the immense difficulty of quantifying things which appear to be incomparable. For example, quantity is to be determined by the same yardstick, once about characters, another time about syntactic patterns and yet another time about transformations. But, in fact, the whole point of having a model like this is to arrive at a basis for comparability of all the items taught in terms of quantity and complexity. Nothing short of a fair idea of the relative difficulty of each section of the materials taught will suffice, if we wish to provide an optimum arrangement, both in terms of order of introducing them and in terms of time allowed for each of them.

A quantitative model of the teaching process has been constructed on the basis of the number of YES - NO decisions required to solve a task, and the validity of this model was established on the data obtained from the supervised courses.

On a subsequent semi-supervised experiment it was found that the specific difficulty of individual teaching materials varies considerably more than expected, according to the speed of teaching and the regularity of drilling. The teaching model devised on the fully supervised courses will have to be modified to cover this point.

The self-teaching version of the course will need to bring the feedback system to the level of completeness where for each difficulty encountered a reference will be offered on the spot leading the student precisely to that section of the instructions or pointing out precisely the set of techniques that will help him to overcome the difficulty.

Thus, the structure of the course coupled with a more or less rational behaviour of the student will constitute a more or less self-regulating equifinal system.

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